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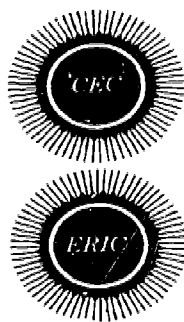
DESCRIPTORS

\*Annotated Bibliographies; Audiovisual Aids;  
\*Audiovisual Instruction; \*Bibliographies;  
\*Exceptional Child Education; Gifted; \*Handicapped  
Children; Instructional Materials; Research  
Projects

ABSTRACT

Listed in the annotated bibliography, one in a series of over 50 similar bibliographies on exceptional children (both handicapped and gifted), are 98 references on audiovisual instruction, particularly as it relates to the instruction of handicapped and gifted children. Many of the references on audiovisual instruction deal with aurally handicapped or mentally handicapped students, specific audiovisual aids, research, films, programed instruction, and teaching methods using audiovisual materials, in addition to many other related topics. For all entries, which were selected from Exceptional Child Education Abstracts, bibliographic data, availability information, indexing and retrieval descriptors, and an abstract are given. Also provided are an author index and a subject index. (KW)

ED0 54580



## AUDIOVISUAL INSTRUCTION

### A Selective Bibliography

February 1971

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CEC Information Center on Exceptional Children  
The Council for Exceptional Children  
Jefferson Plaza, Suite 900  
1411 S. Jefferson Davis Highway  
Arlington, Virginia 22202

This bibliography is a product of the Information Processing  
Unit, CEC-ERIC Information Center on Exceptional Children.

The work presented or reported herein was performed pursuant to a grant from the Bureau of Education for the Handicapped, US Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the US Office of Education and no official endorsement by the US Office of Education should be inferred.

EC 0332272

## The CEC Information Center on Exceptional Children

With a grant from the US Office of Education, the CEC Information Center was established at The Council for Exceptional Children to serve as a comprehensive source of information on research, instructional materials, programs, administration, teacher education, methods, curriculum, etc. for the field of special education. The Center functions as the Clearinghouse on Exceptional Children in the Educational Resources Information Centers (ERIC) program and also as a member center in the Special Education IMC/RMC Network. In addition, the CEC Center's program includes a commitment to a concentrated effort towards the development of products which will interpret research results into educational methods and practices.

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Each abstract contains three sections—bibliographic data, descriptors, and a summary of the document. The bibliographic section provides the document's identifying number (ED and/or EC), publication date, author, title, source, and availability. The descriptors indicate the subjects with which a document deals. The summary provides a comprehensive overview of the document's contents and in some cases document availability is announced here.

#### How to Use the Indexes

Some bibliographies in *Exceptional Children Bibliography Series* contain author and/or subject indexes. In these bibliographies, readers seeking work on a specific aspect of the general topic may consult the subject index to be referred to specific abstract numbers. Abstracts dealing with several topics may be identified by finding the same abstract number under two or more subjects in the subject index.

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401- 500	\$16.45	901-1,000	\$32.90

## ABSTRACTS

### ABSTRACT 10049

EC 01 0049 ED 010 928  
 Publ. Date Jul 66 5p.  
**Deaf and Hard of Hearing, Film Resources in the Area of Deafness and the Education of the Deaf.**  
 California State Dept. of Educ., Sacramento  
 EDRS mf, hc

Descriptors: exceptional child education; aurally handicapped; instructional materials; films; deaf; hard of hearing; catalogs; Sacramento

Ten sources of films pertaining to the education of deaf and hard of hearing children are given in this report. Number of films and selected titles available from each source are listed. (MY)

### ABSTRACT 10130

EC 01 0130 ED 017 110  
 Publ. Date 67 46p.  
**Physical Education and Recreation for the Mentally Retarded.**  
 American Assn. Health, Phys. Educ., Recr., Washington, D. C.  
 Joseph P. Kennedy, Jr. Foundation, Washington, D. C.  
 EDRS mf

Descriptors: exceptional child education; mentally handicapped; audiovisual instruction; physical education; recreation; audiovisual aids; instructional materials; annotated bibliographies; films; phonograph records; sound films; tape recordings; video tape recordings

This guide contains an annotated list of selected audiovisual materials in physical education and recreation for those working in the field of mental retardation. Information about the technical aspects, subject matter, and rental or purchase is provided for 32 films, 23 records, 16 tape recordings, and three slide presentations. This document was published by the American Association for Health, Physical Education, and Recreation, 1201 Sixteenth Street, N.W., Washington, D.C. 20036. (TM)

### ABSTRACT 10153

EC 01 0153 ED N.A.  
 Publ. Date Mar 67  
 Cross, B. G.  
**At Work and Play, Television in the Lives of the Deaf and the Hard of Hearing.**  
 Alexander Graham Bell Assn. for Deaf, Washington, D. C.  
 Volta Review, Volume 69, 1967.  
 EDRS not available

Descriptors: exceptional child education; aurally handicapped; audiovisual instruction; teaching methods; deaf; lipreading; educational television; hard of hearing; closed circuit television; televised instruction; television; instructional television

Lipreading lessons geared for both the deaf and the hard of hearing have been pioneered in several parts of the country.

Experiments with closed circuit television have concluded that it is as effective as a face to face situation for teaching beginning lipreading. The best position for face and lips of the lipreading teacher on TV is a three-quarter view of the face with either the neck or upper torso included in the picture to supply visual clues such as gestures, facial expressions, and reactions. Open circuit programs have also been used. Thirteen references are cited. This article was published in The Volta Review, Volume 69, Number 3, pages 203-207, March 1967. (RS)

### ABSTRACT 10157

EC 01 0157 ED N.A.  
 Publ. Date Nov 66  
 Schmitt, Robert J.  
**A Multi-Media Approach in the Classroom for the Deaf.**  
 New Mexico Foundation, Inc.  
 American Annals of the Deaf, Volume 3, 1966.  
 EDRS not available

Descriptors: exceptional child education; aurally handicapped; audiovisual instruction; deaf; children; visual stimuli; audiovisual aids; instructional aids; visual learning; visual environment; projection equipment; equipment utilization; language development; instructional materials

The multi-media approach to teaching the deaf attempts (1) to increase the use of visual stimuli in the classroom, (2) to provide more appropriate vocabulary and language, (3) to provide ample and interesting repetitions, and (4) to supply opportunities for practicing and using the language. Equipment described includes (1) an overhead projector, (2) an 8mm cartridge projector, (3) a 16mm sound film projector, (4) a filmstrip projector, (5) projection tables, (6) one commercial projection screen, (7) a second projection screen, and (8) a master control box. Materials listed are a captioned film, an 8mm cartridge film, a filmstrip, commercially prepared transparencies, and marking pens (with the overhead projector). Suggestions to teachers are given concerning the overhead projector, the 16mm film, the 8mm cartridge film, and filmstrips. Effective utilization of the new media requires not only equipment available in all classrooms and an increased supply of materials but also teachers trained in preparation and use. This article was published in the American Annals of the Deaf, Volume 3, Number 5, pages 661-667, November 1966. (JD)

### ABSTRACT 10186

EC 01 0186 ED 018 031  
 Publ. Date Aug 65 121p.  
 Hennes, James D. and Others  
**The Illinois Television Project for the Gifted, a Combined Experimental and Demonstration Project to Test and Demonstrate Televised Enrichment**

**Units for Students at Upper Elementary Levels. Final Report.**  
 Illinois Univ., Urbana, Off. Instr. Resources  
 Central Illinois Instr. Television Assn., Urbana  
 EDRS mf, hc

Descriptors: exceptional child research; gifted; audiovisual instruction; enrichment; enrichment programs; academic enrichment; enrichment activities; astronomy; mathematics; geography; televised instruction; television; instructional television; video tape recordings; grade 5; grade 6; comparative testing; attitudes; changing attitudes; academic achievement; creativity; independent study; student reaction; demonstration projects

The results of an experimental project using three series of enrichment units are summarized in this report. Each project consisted of 12 half-hour videotape presentations in astronomy, mathematics, and geography. The lessons were presented to 570 gifted (average IQ of 124) fifth and sixth grade students who represented the upper 25 percent of the total fifth and sixth grade population. Control groups were established by having the children view two of the three series. Work in the project was voluntary, and no grades were given. The program operated completely apart from classroom context and did not involve teachers in any way. Viewers and nonviewers were compared in test performance reaction, attitude toward subject matter, and other factors. Results indicated that significant (.001 level of confidence) improvement in learned context occurred for all three courses. Pupils reported liking the lessons, but little or no difference in attitude or overt behavior was found between viewers and nonviewers. Few students reported any difficulty in keeping up with regular classroom work. The Creativity Aptitude of the student had little bearing on success in (achievement) or attitude toward the telecasts. Independent study ability was related to success in the course. Recommendations are made on selection of students who will view and methods of using the telecasts. Sample tests, questionnaires, and information on related studies are included. A bibliography lists 29 items. (RM)

### ABSTRACT 10247

EC 01 0247 ED 018 047  
 Publ. Date 66 170p.  
 Stepp, Robert E.  
**Systems Approach in Deaf Education, Symposium on Research and Utilization of Educational Media for Teaching the Deaf (Lincoln, Nebraska, April 4-6, 1966).**  
 Nebraska Univ., Lincoln, Teachers Coll.  
 EDRS mf, hc

Descriptors: exceptional child education; aurally handicapped; teaching methods; deaf; instructional technology; systems concepts; language arts; overhead projectors; instructional films; books;



visual learning; auditory perception; teaching techniques; instructional media; media research; films; aural learning; hearing aids; instructional materials

Proceedings from the 1966 Symposium on Research and Utilization of Educational Media for Teaching the Deaf include keynote addresses and discussion papers. A summary of the conference's activities and purposes is followed by Robert Heinrich's explanation of Application of Systems Concepts to Instruction. Discussion papers on instructional subsystems (projected materials, printed materials, and electronic resources) include Synthesizing Language Art Skills with the Overhead Projector by Alice A. Kent, 8mm Film and the Education of Handicapped Children by Joan Rosen-gren Forsdale, The Learner and the Printed Page--The Place of Graphics in a Learning System by Adrian B. Sanford, The Auditory Channel in the Education of Deaf Children by Robert Frisina, and a Rationale for Decision--Selecting the Right Tool for the Job by Robert M. Diamond. S.N. Postlethwait's description of A Multi-Faceted Approach to Teaching is followed by Robert J. Schmitt's discussion paper on A Multi-Media Approach in the Classroom for the Deaf. Harriet Green Kopp's analysis of Applications of Systems Concept to Teaching the Deaf is included and a symposium discussion summary is provided by Marie Focht. Biographic information precedes each paper or address. Bibliographies and figures are sometimes given. Appendixes present the conference program and the roster of its participants. Explanations of the Library Survey Project and the Educational Research Information Center are appended. This document is the American Annals of the Deaf, Volume 111, Number 5, pages 596-703, November 1966. (JD)

#### ABSTRACT 10252

EC 01 0252 ED 018 912  
Publ. Date 67 65p.  
Gold, Milton J.  
**Hunter College Observation Television Center. Catalogue 67.**  
EDRS mf,hc

Descriptors: exceptional child education; audiovisual instruction; catalogs; kine-scope recordings; elementary grades; secondary grades; language arts; early childhood education; foreign language films; mathematics; social studies; health; physical education; sciences; disadvantaged youth; team teaching; reading; testing; educational psychology; aurally handicapped; emotionally disturbed; physically handicapped; speech handi-capped; aphasia; blind; minimally brain injured; cerebral palsy; handicapped children; Project English; Project True

The catalog lists and annotates 112 titles of lessons first recorded on videotape and then transferred to film as kine-scopes. The lessons are filmed in a specially prepared classroom equipped with remotely controlled cameras and micro-phones. During recording the class and

teacher are alone in the classroom. Kine-scopes are included on early childhood education (three), foreign languages (one on junior high school, two on secondary), health and physical education (two on college, two on elementary), listening and speaking (four on elementary), math-ematics (six), psychological foundations (three), elementary reading (15), school and community (three), science (two on elementary, three on secondary), and elementary social studies (seven). Films on special education are on aphasia (eight), blind (five), brain impaired (five), cerebral palsied (two), deaf and hard of hearing (five), emotionally disturbed (one), mental retardation (five), physical-ly handicapped (four), and speech and language (two). Special projects on film are empathy projects (three), Project English and Project True (nine), elemen-tary spelling (one), team teaching (three), testing (one on primary, one on elemen-tary), and elementary writing (one). Eighteen lessons are listed as filmed with the disadvantaged. The kinescopes may be rented (some may be purchased) for use in pre-service or inservice teacher education programs by public and private universities, colleges, and secondary and elementary schools. (DF)

#### ABSTRACT 10265

EC 01 0265 ED N.A.  
Publ. Date Nov 66  
Kent, Alice A.  
**Synthesizing Language Art Skills with the Overhead Projector.**  
East Cleveland Classes for Hearing Im-paired Children, Ohio  
American Annals of the Deaf, Volume 3, 1966.  
EDRS not available

Descriptors: exceptional child education; aurally handicapped; audiovisual instruc-tion; teaching methods; projection equip-ment; overhead projectors; language development; communication skills; lan-guage skills; lipreading; hearing aids; language arts

A structured routine procedure was de-veloped using the overhead projector in classes of the deaf. Its purposes were (1) to improve all the receptive language skills, (2) to improve expressive commu-nication skills, (3) to enable the child to feel success and not be penalized for his errors, and (4) to provide practice for the entire class at one time while allowing for individual differences. The procedure consisted of a daily 30-minute practice period in which the children used both a group hearing aid and lipreading. The teacher spoke a sentence once and the children wrote it down. The teacher wrote it on the overhead projector. The children corrected their own written er-rors and spoke the sentence with the teacher's help. Subject material was of general interest or from the social studies area being studied. The technique en-couraged longer attention span and sus-tained interest. Comprehension of sub-ject matter terminology also improved and the children made their own projec-

tuals to share experience and informa-tion. This article was published in the American Annals of the Deaf, Volume 3, Number 5, pages 617-621, November 1966. (MW)

#### ABSTRACT 10316

EC 01 0316 ED 012 992  
Publ. Date Apr 67 45p.  
Neyhus, Arthur I.  
**Self Teaching in the Development of Speechreading in Deaf Children.**  
Institute for Language Disorders, Evans-ton, Illinois  
OEG-32-23-0790-5002  
EDRS mf,hc

Descriptors: exceptional child research; audiovisual instruction; aurally handi-capped; teaching methods; autoinstruc-tional methods; lipreading; deaf; hard of hearing; autoinstructional aids; instruc-tional films; children

The effectiveness of motion picture films as a teaching device in the development of lipreading skills and the use of a car-tridge-load, self-winding eight millimeter projector as a teaching tool were studied. It was hypothesized that deaf and hard of hearing children would learn pre-scribed vocabulary more quickly by au-toinstructional film methods than by conventional methods. Eighty-nine deaf or hard of hearing subjects, ages 4 to 10, were divided into four age groups. Deaf subjects had a minimum hearing level of 65 decibels (American Standards Asso-ciation). Hard of hearing subjects had a maximum hearing level of 64 decibels (American Standards Association). Subjects within each age group were di-vided into three experimental groups. Group 1 was taught by the films. Group 2 was taught by the teacher and then permitted practice with the films. Group 3 was taught by the teacher only. Results showed no significant difference between the three groups, although Group 1 achieved their maximum scores in the least amount of time. Good lipreaders learned well under all the conditions, while poor lipreaders showed little im-provement in any group. The film proce-dure could be used as a tool for practice and drill, enabling the teacher to devote more of her attention to the slower pupil. A reference list has 30 items. (JB)

#### ABSTRACT 10354

EC 01 0354 ED 014 834  
Publ. Date Dec 66 22p.  
Robinault, Isabel P., Comp.  
**Audio Visual Materials.**  
United Cerebral Palsy Assn., New York, New York  
EDRS mf,hc

Descriptors: exceptional child education; audiovisual instruction; physically handi-capped; vocational rehabilitation; cere-bral palsy; films; filmstrips; annotated bibliographies; catalogs; instructional materials; medical evaluation; recreation; management; activities

One hundred twenty-seven films and filmstrips related to the diagnosis and habilitation of cerebral palsied persons

with varying ages, needs, and circumstances are listed in this publication. The titles are listed alphabetically in sections--basic sciences and basic information, activities of daily living, medical aspects and therapeutic management, evaluation and psychosocial aspects, recreation, and vocational information. Information includes year, running time, color and sound information, rental fee, source from which available, and an annotation. The type of audience (lay or professional) is designated. (JA)

#### ABSTRACT 10390

EC 01 0390 ED 013 088  
 Publ. Date 67 111p.  
**Catalog of Audio-Visual Aids for Counselor Training in Mental Retardation and Emotional Disability. Volume 1, Films.**  
 Devereux Foundation, Devon, Pennsylvania, Institute For Research and Training  
 EDRS mf, hc

Descriptors: exceptional child education; audiovisual instruction; professional education; mentally handicapped; emotionally disturbed; instructional films; counselor training; bibliographies; films; catalogs; children; adolescents; adults

Films selected as appropriate for use in university counselor training programs and in agency in-service training programs preparing staff to work with the mentally and emotionally handicapped are listed alphabetically by title. The 341 listings include brief annotations, film length, date of filming, film distributor, and whether the film is in color. Also included are a subject index to the films, a list of state mental health authorities, and a list of film distributors names and addresses. (RS)

#### ABSTRACT 10416

EC 01 0416 ED 014 190  
 Publ. Date Aug 67 165p.  
 Higgins, Conwell; Rusch, Reuben R.  
**Development and Evaluation of Auto-Instructional Programs in Arithmetic for the Educable Mentally Handicapped. Final Report.**  
 Albany Public Schools, New York  
 EDRS mf, hc

Descriptors: exceptional child research; mathematics; mentally handicapped; programmed instruction; educable mentally handicapped; autoinstructional programs; arithmetic; teaching machines; audiovisual programs; children; experimental programs; program development; program evaluation; program materials; programmed units; Audio Visual Manipulative Desk

The purpose of this project was (1) to develop educational media for teaching educable mentally handicapped (EMH) children arithmetic concepts and (2) to evaluate the developed programmed instructional materials. During the first phase of the study the activities were devoted toward accomplishing the first purpose, developing the equipment and materials. Several devices and combinations of devices were used during the

trial period. The device finally developed, referred to as the audio-visual manipulative (AVM) desk, presents information on a screen through the use of a slide projector. Audio messages are transmitted through earphones and a speaker, and the child manipulates objects or writes on the response surface. Twenty-one different sequential arithmetic programs were developed for the desk for teaching EMH children skill sequences in arithmetic. Desk administered tests were also developed to assess the child's understanding of these concepts. Other materials developed include (1) a manual of instructions for teachers (which includes the program objectives) and (2) reinforcement materials for classroom use. During the evaluation phase of the study, four separate field studies were conducted. The results of these studies show that (1) the AVM system was an effective variable in producing differential results, (2) going through programs twice did produce higher posttest scores than going through the programs once, (3) the system could be used effectively in a classroom setting under the supervision of classroom teachers, and (4) programs developed for EMH children were not appropriate for trainable mentally handicapped children. The appendixes include detailed information on the desk and arithmetic programs. Twenty-three references are listed. (AA)

#### ABSTRACT 10435

EC 01 0435 ED 012 118  
 Publ. Date 64  
 Goldstein, Edward  
**Selective Audio-Visual Instruction for Mentally Retarded Pupils.**  
 EDRS not available

Descriptors: exceptional child research; mentally handicapped; audiovisual instruction; teaching methods; educable mentally handicapped; films; instructional materials; audiovisual aids; educational research; media research; methods research; sound films; adolescents; questionnaires; instructional films

The use of sound films in the education of educable mentally handicapped (EMH) adolescents was examined in an experimental study. The history of special education methods for EMH students is reviewed from the late 18th century through current teaching practices. Individual reviews of 14 research studies and reports on the use of educational films are included. This study involved three experimental and two control groups of EMH students which did not differ significantly on IQ score, chronological age, or sex. Recorded differences among groups existed in ethnic origin, socioeconomic status, sensory defects, and years in special classes. All groups had classroom instruction on handling food and utensils. In addition, experimental groups viewed a related sound film as an introduction (Group E-1), as a central theme (Group E-2), or as a summary (Group E-3) to the lesson. Experimental groups and one control group (C-1) were given a pretest. All

groups were given a posttest. A t test of means of posttest scores of the two control groups was not significant and this indicated that pretesting did not inflate the posttest score. An analysis of variance showed significant interaction between groups and conditions. Group E-3 showed the greatest improvement and Group C-1, the least. A matrix of t tests between groups showed Groups E-1 and E-3 were significantly superior to Group C-1 in degree of improvement. Group E-2 was not significantly superior. The author concludes that selected sound films containing concrete information can profitably be used as summaries to specific lessons. The appendixes include forms used and data on subjects. A 51-item bibliography is included. This document is available from Charles C Thomas, Publisher, Springfield, Illinois, for \$5.25. (MY)

#### ABSTRACT 10443

EC 01 0443 ED 014 836  
 Publ. Date 65 89p.  
 Bornstein, Harry  
**Reading the Manual Alphabet, a Research Program for Developing a Filmed Program for Teaching the Manual Alphabet.**  
 Gallaudet College, Washington, D. C.  
 OEG-7-18-0070-180  
 EDRS mf, hc

Descriptors: exceptional child research; communication (thought transfer); aurally handicapped; programmed instruction; deaf; manual communication; instructional films; adults; college students; educational research; finger spelling; programmed materials

A programmed film course was developed to teach persons how to read the manual alphabet. The effects of the following programming conditions were studied--manner of stimulus repetition, rate of stimulus presentation, and mode of response. The project was done in two phases. In the first phase, subjects were 42 deaf Gallaudet College preparatory students, 26 hearing faculty and staff members of the New Mexico School for the Deaf, and 14 hearing graduate students at Gallaudet. Their programs consisted of 17 lessons and two filmed tests. A relationship of .90 or above (with one exception) was obtained between pretest and posttest scores. Analysis of variance on scores from variations in rate of presentation and amount of repetition of the stimulus material for the preparatory students showed none of the experimental treatments were significantly effective, but there was an overall mean gain (statistically significant, p is less than .01) for reading words and for reading sentences. For the hearing faculty group and the graduate student group, differences in response method (oral, written, or manual) failed to achieve statistical significance. Improvement in reading words achieved statistical significance (p is less than .01) for both groups, but mean gain for reading sentences was not statistically significant for either group. The film course was judged an ineffective instructional tool. The second phase



utilized a change in presentation and a revised, expanded film program (24 lessons) and two film tests. Forty-eight hearing college students served as subjects. Analysis of variance showed repetition was the only experimental treatment significantly affecting scores for words and for sentences ( $p$  is greater than .01 and less than .05). Data for both phases are presented tabularly. Appendixes include (1) captioned instructions and scripts for reading the film course and the two revised tests, and (2) copies of forms used for written responses. A reference list cites 12 items. (MK)

#### ABSTRACT 10496

EC 01 0496 ED 015 607  
 Publ. Date Mar 67 53p.  
**Standards for Library-Media Centers in Schools for the Deaf, a Handbook for the Development of Library-Media Programs.**  
 American Instructors of the Deaf, Washington, D. C.  
 EDRS mf,hc

Descriptors: exceptional child education; aurally handicapped; instructional materials; instructional materials centers; libraries; library standards; deaf; school libraries; audiovisual centers; library equipment; library expenditures; library facilities; library materials; library services; personnel; professional training; special schools

Phase 1 of two projects on library services for the deaf was a survey of the status of library services in schools for the deaf. This report, phase 2, presents the results of the development and adoptions of library-media standards. A library--development and adoptions of library-media standards. A library-media center is defined as a collection of any materials for study and enjoyment, such as books, films, and records. Program principles, guidelines, and priorities are discussed as are personnel qualifications and preparation. The quantitative and qualitative aspects of the printed and audiovisual collections in library-media centers are presented. Quarters and equipment specifications are suggested for various locations. Annual expenditures for educational materials are recommended. This does not include textbooks, workbooks, equipment or supplies. Members of the standards committee are listed. (RS)

#### ABSTRACT 10523

EC 01 0523 ED 023 218  
 Publ. Date Mar 67 42p.  
 Kelly, J. C.  
**Audio-Visual Speech Reading: A Manual for Training the Hard-of-Hearing in Voice Communication.**  
 Illinois University, Urbana, Speech and Hearing Clinic  
 EDRS mf,hc

Descriptors: exceptional child education; aurally handicapped; audiovisual instruction; teaching methods; auditory training; audiovisual communication; auditory evaluation; auditory visual tests; lipreading; speech instruction; deaf; hard of hearing; auditory tests

Designed for persons involved in teaching the deaf and hard of hearing, the booklet provides training in the fundamentals of speech reading, a bisensory (eye plus ear) approach to communication. Basic principles in teaching speech reading are defined, including the advantages of recognition of sounds as opposed to description, use of audible and inaudible stimuli, advantages of contextual exercises, benefits of group instruction, and teaching easier sounds first. Also provided are 20 voice communication lists designed to evaluate the amount of voice which may be sent or received by a patient and a test of visual recognition ability for determining lip reading skill. Directions for using both are stated. Lessons in speech reading are included, beginning with vowels and progressing through the visible consonants to connected speech. The lessons treat recognition training (exploring the characteristics of a sound), and drills with sounds, sound combinations, and words. (JB)

#### ABSTRACT 10608

EC 01 0608 ED N.A.  
 Publ. Date Nov 65 112p.  
**Symposium on Research and Utilization of Educational Media for Teaching the Hearing Impaired (Lincoln, Nebraska, May 23-25, 1965).**  
 Nebraska Center for Continuing Education, Lincoln;  
 Nebraska University, Lincoln, University Extension Division  
 Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf  
 EDRS not available  
 American Annals of the Deaf; V110 N5 P508-620 Nov 1965  
 Reprint From American Annals of the Deaf, Volume 110, Number 5, Pages 508-620, November 1965.

Descriptors: exceptional child education; aurally handicapped; audiovisual instruction; teaching methods; instructional materials; deaf; media research; learning theories; lipreading; auditory training; reading instruction; language instruction; programed instruction; discrimination learning; computer science education; educational television; instructional films; problem solving; adjustment (to environment)

The proceedings include 13 papers concerned with educational media for the hearing impaired. The following topics are treated: implications of learning theory for the hearing impaired, the use of audiovisual techniques in lipreading, an auditory training program for young deaf children, a research basis for reading instruction, and Project LIFE (Language Improvement to Facilitate Education of hearing impaired children). Also covered are programed discrimination training for lipreaders, teaching punch card operators, television production criteria, problems in audiovisual education, demonstrations of 8mm film projects, language instruction, use of new media and techniques, and hearing problem solving (the Responsive Environments Project). (SN)

#### ABSTRACT 10754

EC 01 0754 ED 025 046  
 Publ. Date (66) 179p.  
 Platt, Henry and Others  
**Automation in Vocational Training of the Mentally Retarded. Final Report.**  
 Devereux Foundation Institute for Research and Training, Devon, Pennsylvania  
 Vocational Rehabilitation Administration (DHEW), Washington, D. C.  
 EDRS mf,hc  
 VRA-R-993-P-63

Descriptors: exceptional child research; mentally handicapped; emotionally disturbed; programed instruction; vocational education; autoinstructional aids; autoinstructional methods; job skills; audiovisual instruction; teaching methods; instructional materials; autoinstructional programs; instructional technology; educable mentally handicapped; teaching machines; vocational training centers; learning; homemaking skills; Graflex Audio Graphic Instructor; Car Tap Unit; Auditory Visual Kinesthetic Unit; Devereux Model 50 Teaching Aid; Learn Ease Teaching Device; Mast Teaching Machine

Various uses of automation in teaching were studied with mentally retarded (IQ 70 to 90) and/or emotionally disturbed (IQ 80 to 90) youth aged 16 to 20. Programed instruction was presented by six audiovisual devices and techniques: the Devereux Model 50 Teaching Aid, the Learn-Ease Teaching Device; the Mast Teaching Machine, the Graflex Audio-Graphic Instructor, the Car Tap Unit, and the A-V-K (Auditory-Visual-Kinesthetic) Unit. Several preliminary field tests were conducted which involved the development of skills in work related areas; another study involved measurement in the kitchen. Later field testing employed units on job responsibilities, tool recognition, telephone use, and home nursing. Data analysis indicated that the automated method was usually more efficient than the conventional and programed lectured methods; the method integrating conventional and automated instruction was most effective; the machine method alone was least effective; autoinstructional aids decreased the amount of time needed to learn; autoinstructional aids produced greater retention; and autoinstructional aids produced group gains, but individual gains varied considerably within each group. (JD)

#### ABSTRACT 10758

EC 01 0758 ED 025 050  
 Publ. Date Aug 67 135p.  
 Johnson, Richard A.  
**A Pilot Demonstration of the Application of Educational Television to the In-Service Training Needs of Teachers of the Mentally Retarded. Final Report.**  
 Minnesota State Department of Education, St. Paul  
 Office of Education (DHEW), Washington, D. C., Bureau of Research

EDRS mf,hc  
OEG-5-16-035  
BR-5-1000

Descriptors: exceptional child research; mentally handicapped; teaching methods; professional education; audiovisual instruction; open circuit television; inservice teacher education; pilot projects; demonstration projects; individualized instruction; class management; educational television; televised instruction; teacher improvement; program evaluation; behavior change

The project was developed out of recognition of the gap existing between formal training programs for teachers of the educable retarded and actual classroom teaching. In an attempt to provide meaningful inservice experiences to a large number of both urban and rural special class teachers at minimal per teacher expense, the Minnesota State Department of Education, in cooperation with an educational television station, produced four 30-minute programs which were broadcast at 3:30 p.m. and emphasized teaching for individual differences and behavior management. The programs were filmed in actual classes for the educable mentally retarded. A teacher evaluation form was sent to 315 educable class teachers in Minnesota and Wisconsin within broadcast range; on 11 questions relating to the ability of the programs to convey specific, salient aspects of classroom teaching of the mentally retarded, responses were significantly favorable ( $p$  equals .05 or  $p$  equals .01). Recommendations were for continuation of the project over a 2-year period with the production of 30 or more programs, and for procedural, technical, and professional changes which would improve program quality and make possible production at a lower per program expense. (Author/SN)

#### ABSTRACT 10765

EC 01 0765 ED 024 166  
Publ. Date Nov 67 219p.  
Sage, Daniel D.

#### The Development of Simulation Materials for Research and Training in Administration of Special Education. Final Report.

Syracuse University, New York  
Office of Education (DHEW), Washington, D. C., Bureau of Education for the Handicapped  
EDRS mf,hc  
OEG-1-6-062466-1880  
BR-6-2466

Descriptors: exceptional child research; administration; instructional materials; professional education; administrative personnel; public administration education; audiovisual instruction; role playing; test results; behavior change; test reliability; test validity; administrator evaluation; questionnaires; administrator characteristics; material development; administrator role; simulated environment; simulation

Materials utilizing a simulated environment approach were developed, produced, pilot tested, and evaluated to de-

termine their usefulness as media for training programs and for behavioral research in the process of administration of special education. Background and task materials took the form of both written and audiovisual media, featuring a communications in-basket, telephone calls, filmed observations, and role-played conferences. Instruments for evaluating the materials consisted of a test used before and after treatment to assess behavioral change, a category scoring system to assess performance during the training sessions, and a participant opinionnaire. Two experimental groups (10 in one and 21 in the other) and two control groups (10 each) were involved. The following results were noted: performance scoring was reliable (intraclass correlation coefficients were .81 to .98); differences between pre- and post-treatment were significant for experimental groups ( $p$  less than .05) and were not significant for the control group; a lack of correlation between test and performance variables cast doubt on the validity of the test scales; and the materials were perceived by participants as an extremely valuable vehicle for training. The materials developed are appended. (Author/SN)

#### ABSTRACT 10820

EC 01 0820 ED 025 091  
Publ. Date Sep 67 82p.  
The Testing and Modification of Overhead Projection Transparencies for Special Use with Classes for the Deaf.  
Texas Education Agency, Austin  
Office of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
OEG-7-53-6210-296 NDEA-A-P-1320  
BR-5-0351

Descriptors: exceptional child research; aurally handicapped; audiovisual instruction; instructional materials; evaluation; audiovisual aids; transparencies; teacher developed materials; deaf; test results; children; cooperative planning; analysis of variance; statistical analysis

Transparencies for overhead projectors developed under the leadership of the Texas Education Agency for regular public school classes were modified for use with deaf students by five teachers in the Texas School for the Deaf and a total of 60 sets of modified and unmodified visuals (5,000 visuals) was made. Seven schools for the deaf in widely separated areas of the United States agreed to use both the modified and unmodified visuals on an experimental basis, in comparable classes (60 in all with 514 students), both classes having the same teacher. Student age, intelligence, and level of pretest performance were held constant statistically. Analysis of the pre- and posttest data by a statistician indicated no significant difference in achievement between experimental and control groups. There was, however, a highly significant difference between teachers on the subjects taught: earth science,  $p$  equals .0008; modern mathematics,  $p$  equals .00005; algebra,  $p$  equals .00005; geometry,  $p$  equals .00005; and world geography,  $p$

equals .00005. The project identified desirable modifications and some characteristics of high quality overhead transparencies for the deaf, and it was concluded that using a sizeable number of consultants in a cooperative approach to educational research is a successful and efficient method. (Author/SN)

#### ABSTRACT 10821

EC 01 0821 ED 025 092  
Publ. Date Sep 68 18p.  
Grumpelt, Howard R.; Rubin, Ellen  
Speed Listening Skill by the Blind as a Function of Training. Final Report.  
Washington College, Chestertown, Maryland  
Office of Education (DHEW), Washington, D. C., Bureau of Research  
EDRS mf,hc  
OEG-3-8-080024-0021(010)  
BR-8-C-024

Descriptors: exceptional child research; visually handicapped; teaching methods; audiovisual instruction; tape recordings; blind; secondary school students; speech compression; audiovisual aids; listening comprehension; listening; listening skills; skills; auditory training; aural learning

In order to determine whether speed listening practice could improve comprehension of pitch-altered rapid speech, 66 high school students blind since at least age 6 were divided into experimental (E) and control (C) groups, matched on the basis of age (range 15 to 19 years), IQ (range 85 to 130), and pretest comprehension of material presented at normal rates. Using the pitch altering method of speeding up tape recorded material, training was given the E-group at 275 and 300 words per minute (wpm) while the C-group received similar training at the standard 175 wpm level. Subjects were administered two training sessions per day of three trials of taped material (about 875 words each) followed by 10 five-foil multiple choice questions after each trial with a maximum number of 14 sessions. The E-group did significantly better than the C-group on the comprehension posttest administered at 300 wpm ( $p$  less than .001). While a clear cut training effect was obtained, the degree of improvement due to this training (9.4%) was not large. (Author)

#### ABSTRACT 10831

EC 01 0831 ED 025 890  
Publ. Date 19 Aug 68 149p.  
Kafavian, Haig  
Study of Man-Machine Communications Systems for the Handicapped. Interim Report.  
Cybernetics Research Institute, Inc., Washington, D. C.  
Office of Education (DHEW), Washington, D. C., Bureau of Research  
EDRS mf,hc  
OEG-2-7-070533-4237  
BR-7-0533

Descriptors: exceptional child research; multiply handicapped; communication (thought transfer); instructional materials; audiovisual instruction; cybernetics; man machine systems; language arts;



electromechanical technology; communication skills; case records; equipment evaluation; input output devices; braille; systems development; perceptual motor coordination; typewriting

Newly developed communications systems for exceptional children include Cybercom; CYBERTYPE; Cyberplace, a keyless keyboard; Cyberphone, a telephonic communication system for deaf and speech impaired persons; Cyberlamp, a visual display; Cyberview, a fiber optic bundle remote visual display; Cybersem, an interface for the blind, fingerless, and others with limited control; Cybertac, a tactile communications technique for the blind; utilizing palpable vibrations; Cyberbrail, a system for simultaneous printing of braille and typed letters via Cybercode dual inputs; Cybergloves, transducer-fitted gloves, and HAIBRL, an unambiguous punctiform tactile communication system utilizing reference perforations. Three blind, five multiple impaired, two bilateral amputees, and two deaf subjects were tested on the new mechanisms using experimental instructional materials. The latter include Cybertype Exercise Series, a child's circus story guide, and language arts exercises. Initial results indicated that the systems were capable, reliable, and effective in assisting handicapped subjects to communicate. (Author/RP)

#### ABSTRACT 10852

EC 01 0852 ED 003 526  
 Publ. Date 63 80p.  
 Klein, Malcolm W.  
**An Experimental Evaluation of Audio-Visual Methods: Changing Attitudes Toward Education.**  
 John Tracy Clinic, Los Angeles, California  
 EDRS mf, hc  
 OEG-704002

Descriptors: exceptional child research; aurally handicapped; audiovisual instruction; family (sociological unit); deaf; hard of hearing; children; parent attitudes; parent education; parent conferences; questionnaires; participant characteristics; attendance; evaluation; instructional materials

The basic objective of this research was to evaluate the effectiveness of a particular audiovisual program on the attitudes and information levels of parents of young deaf and hard of hearing children. The program was composed of one longer introductory film and record and 18 film-record units in two series, i.e., the information series in which a didactic approach was used to teach the concepts and techniques used in the John Tracy Clinic, and the parent attitude series in which the Clinic's concepts of child rearing and family relations were illustrated by examples. The parent attitude series (the star version) was narrated by well known movie and television personalities, while the information series (the expert version) used fictitious professionals as narrators. For 10 weeks, on a nationwide basis, 47 self-organized groups of parents (average number was less than 10) met each week to view two films, lis-

ten to two records, and discuss the materials. The materials were presented in four modes, all of one series before the other, or with one another. The research further asked whether different orders of presentations of these materials would differentially affect levels of information and attitude change, and whether levels of information and attitude change would prove to be a function of prior experience and personality characteristics. Instruments were four parent-completed questionnaires (group assignment, before, after, and delayed after). Findings indicated that the materials successfully increased information levels and affected some positive change in attitudinal positions, though in the case of the latter a certain amount of backsliding was evident. However, type of narration and order of presentation did not differentially affect these changes. Attendance and selected background characteristics proved to be significantly related to the observed attitude and information change. The mechanics of making the audiovisual materials, questionnaires used, descriptions of the films, and the results (seven tables, 10 figures) are included. (GD)

#### ABSTRACT 10904

EC 01 0904 ED N.A.  
 Publ. Date Mar 68 14p.  
 Doehring, Donald G.  
**Picture-Sound Association in Deaf Children.**  
 Canadian Department of National Health and Welfare  
 EDRS not available  
 PHRG-604-7-507  
 Journal of Speech and Hearing Research; V11 N1 P49-62 Mar 1968

Descriptors: exceptional child research; aurally handicapped; programed instruction; perception; learning disabilities; learning; deaf; audiovisual aids; auditory discrimination; auditory visual tests; aural stimuli; auditory perception; nonverbal learning

To assess nonverbal auditory perception in deaf children, programed instruction in picture-sound association was given to 26 deaf children (aged 4 to 10), 20 hearing children with learning disorders (aged 7 to 15), and 18 normal children from day nurseries (aged 4 to 6). Twelve tape-recorded meaningful nonverbal sounds taken from the Sights and Sounds auditory program were presented in conjunction with three pictures on a viewing-response device, and the subject was required to match sounds and pictures. The criterion of learning was set at no more than three errors per session or one error for any given sound. Nineteen deaf children reached the criterion of learning in one to 11 sessions. All but two of the children with learning disorders learned on the first session, and 13 of the children learned in from one to six sessions. Individual performances among deaf children were somewhat related to age, hearing loss, and aided hearing ability, but not to teacher rated intelligence. Results of the study suggested that deaf children may benefit from auditory nonverbal perceptual training. (JB)

#### ABSTRACT 10308

EC 01 0908 ED 026 751  
 Publ. Date Sep 66 147p.  
 Robinson, Jacques H. and Others  
**Bimodal Educational Inputs to Educable Mentally Retarded Children. Final Report.**  
 American Institutes for Research, Silver Spring, Maryland, Communication Research Program  
 National Institutes of Health, Bethesda, Maryland  
 EDRS mf, hc  
 MH-10819-01 AIR-E-49-9/66-FR

Descriptors: exceptional child research; audiovisual instruction; mentally handicapped; learning; teaching methods; aural learning; intermode differences; reading comprehension; multisensory learning; educable mentally handicapped; visual learning; tape recordings; multimedia instruction; audio equipment; pacing; speech compression; instructional technology; retention; listening comprehension

The usefulness of paced auditory presentation combined with simultaneous visual presentation of lesson material was examined as a technique of improving reading skills in the educable mentally handicapped. A 30-day instructional period involved four groups of students (IQ's 52 to 85, ages 12-11 to 17-11). The groups were as follow: a machine audio group (MAud) exposed to rate controlled taped material by audio means alone; a machine audiovisual group (MAV) that received visual copy and also listened to the taped recordings; a teacher audiovisual group (TAV) using bimodal stimulation; and a control group (C). Materials were recorded and presented at appropriate rates of presentation by means of a tempo regulator, a machine which varies rate without pitch distortion. Results indicated little impact of the experimental procedures on the standardized pre-post test measures; however, daily comprehension measures favored the bimodal presentation modes, particularly the MAV group. Some trend favoring slowed presentations was evident. The subjects demonstrated significant retention of instructional material after a 1-month interval, and significantly higher performance on a relearning measure than on initial presentations, after a 2-month interval. (Author/JD)

#### ABSTRACT 10948

EC 01 0948 ED 026 792  
 Publ. Date 68 261p.  
**Designing Instructional Facilities for Teaching the Deaf: The Learning Module; Symposium on Research and Utilization of Educational Media for Teaching the Deaf (4th, Lincoln, Nebraska, February 5-7, 1968).**  
 Nebraska University, Lincoln, Department of Educational Administration; Midwest Regional Media Center for the Deaf, Lincoln, Nebraska  
 Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch  
 EDRS mf, hc  
 OEC-3-7-000199-0199(019)

Descriptors: exceptional child education; aurally handicapped; facilities; audiovisual instruction; deaf; instructional technology; acoustics; educational facilities; design needs; architectural programing; facility requirements; lighting; school planning; classroom furniture; multimedia instruction; classroom design; educational specifications; environmental design

Eleven conference papers treat designing learning modules, or complete instructional facilities, for the deaf. The following aspects are considered: the changing classroom, a multimedia approach to teaching American history, a project design for a special school, and educational implications of architecture for the deaf. Further topics are acoustical design of classrooms for the deaf, the use of amplification in educating deaf children, furnishings in the workshop classroom, and lighting in the learning module. Creating environments for learning, providing through architecture for social needs, and planning the deaf child's complete formal education are also discussed; a report from Captioned Films for the Deaf, conference and discussion summaries, foreword, and introduction are provided. Appended are the program and roster of participants. (JD)

#### ABSTRACT 11048

EC 01 1048 ED N.A.  
Publ. Date Sep 68 88p.  
Pilch, Mary M.

**Special Education for the Gifted through Television; Syllabus 1968-69, A Compendium of Information about a Special Educational Television Program Organized and Developed for Challenging the Productive-Divergent Thinking Potential of Gifted Students in Grades 5-6-7.**

Educational Research and Development Council of Northeast Minnesota, Duluth Office of Education (DHEW), Washington, D. C.

EDRS not available  
OEG-3-7-7-03260-4955 P-OE-67-03260-1

Descriptors: exceptional child education; gifted; audiovisual instruction; television; teaching methods; televised instruction; educational television; television curriculum; creative thinking; inservice teacher education; films; productive thinking; population trends; educational needs; health needs; communications; transportation; instructional materials; art appreciation

The use of instructional television and the advantages of a series about man and his future developed for gifted students in grades 5, 6, and 7 are described; the differences between the three related areas, content, process, and inservice, are mentioned, and the dates, times, titles, and instructors of programs are given. A model for teaching productive-divergent thinking developed by Frank E. Williams lists 23 teaching strategies which are discussed. Synopsis of the 54 half-hour programs comprising the series, (18 programs in each of the three areas), are provided. Content and procedures designed for students are or-

ganized according to theme, film data, film concepts, vocabulary, provocative questions, concepts emphasized, and strategies demonstrated while an interpretation and discussion of strategies is given for the inservice shows. Programs cover the following topics: the need for space to control population explosion and to implement new communication systems, and the need for exploration of outer space and transportation problems, health needs, the problem of adequate education for a complex society, and the search for beauty. (RP)

#### ABSTRACT 11116

EC 01 1116 ED 028 565  
Publ. Date Jan 68 52p.

Goforth, E. Jack

**Suggestions and Guidelines for Development of Television Facilities in Schools for the Deaf.**

Southern Regional Media Center for the Deaf, Knoxville, Tennessee  
Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch;  
Tennessee University, Knoxville, College of Education  
EDRS mf,hc

Descriptors: exceptional child education; aurally handicapped; audiovisual instruction; instructional technology; educational television; instructional television; closed circuit television; open circuit television; deaf; educational specifications; media technology; models; systems analysis; equipment; estimated costs; classrooms; campuses; regional programs; national programs; personnel; educational facilities

The various combinations of television equipment suitable for use in deaf education are described in terms of the systems used. The classroom system would consist of two cameras, a videotape recorder, a special effects generator for captioning, and a monitor of sufficient size for classroom viewing. The campus system would have the same capabilities but would be of broadcast quality, requiring a full time manager. The regional system would necessitate establishment of a regional captioning center as an interim project, to be manned by professional staff which would create needed program packages and engage in research and design of software. The national system would provide for electronic captioning for open circuit television. For all the above systems, technical aspects are considered, and operating and equipment costs are estimated. Staff requirements are specified for campus and regional systems, and equipment layouts are provided for all but the national system. (JD)

#### ABSTRACT 11146

EC 01 1146 ED N.A.  
Publ. Date Apr 67 29p.  
McMahan, Marie

**Educational Media Center; The Library's New Book.**

Western Michigan University, Kalamazoo, Educational Resources Center

Nebraska University, Lincoln, Teachers College, Department of Educational Administration;

Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf  
EDRS not available

Paper Prepared for Symposium on Research and Utilization of Educational Media for Teaching the Deaf (Lincoln, Nebraska, April 10-12, 1967).

Descriptors: exceptional child services; aurally handicapped; instructional materials; deaf; instructional materials centers; school libraries; audiovisual aids; equipment evaluation; cataloging; library services; equipment maintenance; equipment storage; equipment utilization; library facilities; library circulation; library technical processes

The use of the educational media center in the education of the deaf is discussed. Supportive services of such a center are described, including selecting materials and equipment for purchase and classifying and cataloging, storing, scheduling, distributing, maintaining, and processing and inventorying materials and equipment. Utilization of instructional materials as another service of the center is discussed in terms of helping teachers and pupils select and utilize material, and also helping them produce media. Center facilities listed include reading areas, storage spaces, independent learning areas, office space for members of the media staff, and areas for work, circulation, teacher preview, equipment, production, and classroom-workshop. A table is provided summarizing the major quantitative standards for school library programs. (JD)

#### ABSTRACT 11147

EC 01 1147 ED N.A.  
Publ. Date Apr 67 16p.

Jackson, William D.

**Media Production Facilities in Schools for the Deaf.**

Tennessee University, Knoxville, Southern Regional Media Center for the Deaf  
Nebraska University, Lincoln, Teachers College, Department of Educational Administration;

Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf  
EDRS not available

Paper Prepared for Symposium on Research and Utilization of Educational Media for Teaching the Deaf (Lincoln, Nebraska, April 10-12, 1967).

Descriptors: exceptional child education; aurally handicapped; instructional materials; audiovisual aids; educational needs; special schools; books; films; deaf; school libraries; instructional materials centers; material development; photography; display panels; educational equipment; library services

Past and present inadequacies of instructional facilities are reviewed with emphasis placed upon present facilities and recent relevant federal legislation for the deaf. Commercially produced materials are criticized and the need for modifica-

tion and production of media is presented. Characteristics of schools for the deaf to be considered in developing a framework for local production are listed; three phases are then proposed for the development of facilities for media production, including preplanning, setting up, and implementing the program. Specifications are given for the facilities themselves, and the following production techniques are explained: illustration, preservation, identification, duplication, photography, and display. (JD)

#### ABSTRACT 11237

EC 01 1237 ED 003 612  
 Publ. Date Feb 64 205p.  
 Torrance, E. Paul; Gupta, Ram  
**Development and Evaluation of Recorded Programed Experiences in Creative Thinking in the Fourth Grade.**  
 Minnesota University, Minneapolis, Bureau of Education Research;  
 Minnesota University, Minneapolis, College of Education  
 EDRS mf,hc  
 NDEA-VIIA-880

Descriptors: exceptional child research; teaching methods; audiovisual instruction; creative expression; creative teaching; audiovisual aids; phonotape recordings; programed materials; curriculum enrichment; creative thinking; grade 4; creative development; creativity

Two problems related to the development of creative thinking abilities at the fourth-grade level were investigated: the difficulties teachers experience in encouraging and guiding creative experiences in the classroom and relating them to curricular content, and the development of ways for counteracting the numerous influences which bring about a slump in creative thinking abilities, motivations, and activities at about the fourth grade level. Subjects were 30 fourth grade classes from three states. Teachers in the experimental groups used experimental audiotapes, and those in the control groups used conventional instruction. Before the experimental materials were introduced, a number of creativity assessment devices were administered to participating students. Near the end of the school term and upon completion of the experimental program, all classes were readministered the creativity assessment devices. In spite of the fact that many of the teachers in the control groups used a variety of deliberate methods to encourage creativity and that some of the experimental classes did not properly use the experimental materials, the evidence was in favor of the experimental procedures. (JC)

#### ABSTRACT 11330

EC 01 1330 ED N.A.  
 Publ. Date Nov 67 118p.  
**The Educational Media Complex; Symposium on Research and Utilization of Educational Media for Teaching the Deaf (3rd, Lincoln, Nebraska, April 10-12, 1967).**

Nebraska University Teachers College, Lincoln, Department of Educational Administration  
 Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf  
 EDRS not available  
 American Annals of the Deaf; V112 N5  
 P636-754 Nov 1967

Descriptors: exceptional child education; aurally handicapped; audiovisual instruction; educational equipment; media technology; audiovisual coordinators; library reference services; information utilization; instructional materials centers; instructional media; inservice teacher education; administration

Papers from a symposium held to facilitate application of technological development of scientific equipment suitable for instruction are given. Included are a report from Captioned Films for the Deaf and discussions on instructional materials centers, the library as an educational media center, audiovisual programs, media personnel and deaf schools, implementation of media programs in deaf schools, and the purpose of educational media in the learning process. A small school instructional materials center's diffusion of innovations for learning is described as well as an inservice education program for teachers of the deaf and media production facilities in schools for the deaf. The symposium discussion summary, program, and roster are included. (SN)

#### ABSTRACT 11432

EC 01 1432 ED N.A.  
 Publ. Date Mar 69 8p.  
 Marshall, Nancy R.; Goldstein, Steven G.  
**Imparting Diagnostic Information to Mothers: A Comparison of Methodologies.**  
 Oregon University Medical School, Portland  
 EDRS not available  
 Journal of Speech and Hearing Research; V12 N1 P65-72 Mar 1969

Descriptors: exceptional child research; speech handicapped; parent counseling; mothers; speech evaluation; clinical diagnosis; feedback; audiovisual aids

This study sought to evaluate maternal understanding of information obtained during a diagnostic consultation by mothers of speech-handicapped children as a result of two replay procedures: Video Tape Replay (VTR) and Audio Tape Replay (ATR). A 35-item list (Communication Behavior Scale; CBS) of developmental levels in speech and language was constructed and validated. It consisted of items classified under the following variables: verbal comprehension, verbal communication, articulation ability, and intelligibility of speech. One hundred twenty mothers of speech-handicapped children were divided into three groups of 40 each. All subjects completed the CBS before and after they were seen by the diagnostician, a speech pathologist. Group I received only the regular diagnostic consultation from the speech path-

ologist; Group II (VTR) saw the entire diagnostic consultation again by videotape replay; and Group III (ATR) heard the entire diagnostic consultation again by tape recording. Statistically significant differences were found for all four variables between control and experimental groups. With one exception, no differences were found between the experimental groups. The implications of mechanical feedback and its utility in the diagnostic or research setting are discussed. (Author)

#### ABSTRACT 11445

EC 01 1445 ED N.A.  
 Publ. Date Jun 69 6p.  
 Silberberg, Norman E.; Silberberg, Margaret C.  
**The Bookless Curriculum: An Educational Alternative.**  
 Minnesota University, Minneapolis, Medical School;  
 Kenny Rehabilitation Institute, Minneapolis, Minnesota  
 Social and Rehabilitation Service (DHEW), Washington, D. C.  
 EDRS not available  
 Journal of Learning Disabilities; V2 N6  
 P302-7 Jun 1969

Descriptors: exceptional child education; learning disabilities; curriculum; remedial reading; audiovisual programs; instructional technology; educational objectives; instructional innovation; dyslexia; illiteracy

As more children in this country are exposed to education, and for longer periods of time, the number who are encountering difficulty in school increases. For many of these children, the problem is simply that, in order to learn, they must read. For a large number of children with learning problems or IQ's below 100, this requisite artificially deprives them of comfortable avenues for learning. Modern technology provides equipment to educate many of the children for whom reading is either an uncomfortable or inefficient technique. For such children, a bookless curriculum is proposed which would provide children with an education, while reading is relegated to a more realistic role in education, that of a skill area which is only one of the many tools available for learning. (Author)

#### ABSTRACT 11455

EC 01 1455 ED N.A.  
 Publ. Date Nov 65 1p.  
 Gough, John A.  
**Captioned Films for the Deaf.**  
 The Council for Exceptional Children, Washington, D. C.  
 EDRS not available  
 Exceptional Children; V32 N3 P171 Nov 1965

Descriptors: exceptional child services; aurally handicapped; instructional materials; audiovisual instruction; audiovisual aids; deaf; films; instructional films; federal programs

Public Law 85-905 as amended by Public Law 87-905 gives authority to the U.S. Office of Education to carry on research and training activities related to the captioned films it produces for deaf persons.



The Office of Education has more than 60 film depositories in 48 states for captioned films. It serves nearly 1,200 groups and develops techniques for teaching language to deaf children. Further information about this service can be obtained from the Captioned Films Branch, Bureau of Research, U.S. Office of Education, 400 Maryland Avenue, S.W., Washington, D.C. 20202. (EB)

#### ABSTRACT 11521

EC 01 1521 ED 029 423  
 Publ. Date Mar 69 84p.  
 Meyen, Edward L. and Others  
**The Use of Overhead Projection in Classrooms for the Mentally Retarded.**  
 Iowa University, Iowa City;  
 Special Education Curriculum Development Center, Iowa City  
 Iowa State Department of Public Instruction, Des Moines;  
 Office of Education (DHEW), Washington, D. C.  
 EDRS mf, hc  
 OEG-3-7-002883-0499  
 BR-6-2883

Descriptors: exceptional child education; mentally handicapped; audiovisual aids; overhead projectors; equipment maintenance; transparencies; teacher developed materials; freehand drawing; projection equipment; instructional materials; equipment utilization; material development

The need for visual presentation in classes for the mentally retarded is presented, and projector operation and maintenance are described. Transparency production and design are considered, and teaching with the overhead projector is discussed. (JD)

#### ABSTRACT 11568

EC 01 1568 ED N.A.  
 Publ. Date Sep 67 11p.  
**Films on Hearing and Deafness.**  
 Alexander Graham Bell Association for the Deaf, Washington, D. C.  
 EDRS not available  
 Volta Review; V69 N7 P446-56 Sept 1967

Descriptors: exceptional child education; aurally handicapped; instructional materials; audiovisual instruction; deaf; hard of hearing; bibliographies; filmstrips; films

In response to numerous inquiries about films pertaining to certain aspects of deafness, education of the deaf, and teacher recruitment, a list of 72 films and filmstrips currently available for sale or rent is presented. The name of each film is followed by information regarding size of films, color, length, sound, and purchase or rental price. There is a brief summary of content and an address from which each film may be obtained. Indication is made as to whether the film is of special interest to medical personnel, educators, therapists, parents, school children, or the general public. (JB)

#### ABSTRACT 11598

EC 01 1598 ED N.A.  
 Publ. Date Apr 69 5p.  
 Junkala, John

#### Film Production with the Mentally Retarded.

EDRS not available  
 Education and Training of the Mentally Retarded; V4 N2 P75-9 Apr 1969

Descriptors: exceptional child education; film production; mentally handicapped; teaching methods; audiovisual aids; student motivation

Making 8 millimeter movies with mentally retarded students is a highly motivating and relatively inexpensive activity which provides unparalleled opportunities for the teaching and reinforcement of almost any set of skills and concepts. Specific examples of the successful use of film making to help a class become more cohesive, to enhance the study of a topic, and to tie a unit together are presented. The steps taken in filming a movie on outer space are outlined. (Author/RJ)

#### ABSTRACT 11622

EC 01 1622 ED N.A.  
 Publ. Date Nov 67 3p.  
 Doepeke, Katherine G.  
**Retarded Children Learn to Sing.**  
 EDRS not available  
 Music Educator's Journal; V54 N3 P89-91 Nov 1967

Descriptors: exceptional child research; mentally handicapped; music education; teaching methods; trainable mentally handicapped; audiovisual aids; overhead projectors; tape recordings

Tape recordings of five sets of 10 songs each were played for a class of nine trainable mentally handicapped children while they watched the lyrics shown on an overhead projector. Three methods of presentation were used which offered progressively less teacher help; the procedure offering the most help had the greatest success. After using the tapes for 3 months, four of the children knew all the songs. Methods involved in the program are described; effects of the experience are discussed in terms of socialization, memory, reading, and spelling improvement. (BW)

#### ABSTRACT 11706

EC 01 1706 ED N.A.  
 Publ. Date Feb 67 2p.  
 Burkland, Marjorie  
**Use of Television to Study Articulatory Problems.**  
 EDRS not available  
 Journal of Speech and Hearing Disorders; V32 N1 P80-1 Feb 1967

Descriptors: exceptional child education; speech handicapped; speech therapy; closed circuit television; video tape recordings; speech evaluation; audiovisual aids

The advantages of videotape over mirror reflections as a teaching device are described as follows: the image of the mouth is magnified; students typically feel more comfortable about analyzing their speech on the monitor; and the speech is more likely to be the student's natural speech pattern. Suggestions for expanded use of videotape include working with stutterers and employing it for

longitudinal research in speech therapy. (MK)

#### ABSTRACT 11715

EC 01 1715 ED N.A.  
 Publ. Date Nov 66 4p.  
 Postlethwait, S. N.  
**A Multi-Faceted Approach to Teaching.**  
 EDRS not available  
 American Annals of the Deaf; V111 N5 P657-60 Nov 1966

Descriptors: exceptional child education; teaching methods; curriculum; aurally handicapped; sciences; college science; plant science; science instruction; botany; autoinstructional methods; individual instruction; college freshmen; audiovisual aids

An audio-tutorial approach to botany which could be adapted for use with handicapped persons is described. The course involves three study sessions, two of which are scheduled. The sessions include a General Assembly Session (GAS), an Integrated Quiz Session (IQS), and an Independent Study Session (ISS). The GAS is under the supervision of the senior course instructor, meets for 1 hour a week, and consists of lectures. The IQS involves eight students on a scheduled basis for a 30-minute quiz period. The ISS is unscheduled, conducted in a learning center, and involves the use of booths. Each booth contains a tape player, a movie projector, specimens, microscope, slides, experimental equipment, and other materials needed for the weekly lesson. Results indicate an improvement in performance of persons taking the course using this approach. The utilization of this technique with the deaf and hard of hearing, use of audiotape to amplify material, the exploitation by the ISS of all sense modalities, and the ability of the teacher to structure such activities as repetition, association, and concentration are considered. Additional features mentioned are a one-to-one student-teacher ratio and individualized instruction in which the student progresses in small logical sequential learning steps. (EB)

#### ABSTRACT 11716

EC 01 1716 ED N.A.  
 Publ. Date Nov 66 9p.  
 Diamond, Robert M.  
**A Rationale for Decision: Selecting the Right Tool for the Job.**  
 EDRS not available  
 American Annals of the Deaf; V111 N5 P648-56 Nov 1966

Descriptors: exceptional child education; aurally handicapped; audiovisual instruction; instructional television; educational television; videotape recordings; instructional materials; educational objectives; audiovisual aids

In order to determine which of the new instructional media will best aid the hearing handicapped, the following educational objectives must be considered: the student's needs, society's needs, school's needs, and realm of knowledge. These needs may be met by an independent study program, large group instruc-

tion, or interaction on a one-to-one basis between teacher and student. Educational television is discussed as one method of large group instruction with the aurally handicapped, which, up until now, has been used on a limited basis to teach lip reading, to teach general information to the hearing handicapped, and to inform the public about the needs of the aurally handicapped. Despite the limitations, suggestions are made for consideration of educational television for use with the hearing impaired if the number of specialists is limited and the student body large, the audience is scattered and cannot be taught by any other technique, classroom observations are desired, immediate reply is desired, available resources are limited, and only one-way transmission is needed. Three references are cited. (EB)

#### ABSTRACT 11743

EC 01 1743 ED N.A.  
Publ. Date 66 54p.  
Abraham, Willard  
**The Mentally Retarded Child and Educational Films.**  
EDRS not available  
Coronet Films, 65 East South Water Street, Chicago, Illinois 60601 (\$1.00).

Descriptors: exceptional child education; mentally handicapped; audiovisual instruction; films; audiovisual aids; slow learners; teaching methods; educable mentally handicapped; prevention; teacher attitudes; educational needs

Characteristics and needs of the educable retarded are considered, and educational films, which provide a basic attraction to children and may increase learning, are offered as an important resource in instruction of these children. Teacher statements and research findings support the skillful use of films in the classroom. Recommendations are made related to film use with an appendix which gives additional sources of information, discusses the characteristics of a slow learner, and defines 15 kinds of preventable mental retardation. (AB)

#### ABSTRACT 11782

EC 01 1782 ED N.A.  
Publ. Date Feb 68 4p.  
Ucer, Erol and Others  
**Utilizing Film Therapy with Emotionally Disturbed Retardates.**  
EDRS not available  
Mental Retardation; V6 N1 P35-8 Feb 1968

Descriptors: exceptional child education; emotionally disturbed; mentally handicapped; psychotherapy; multiply handicapped; educable mentally handicapped; behavior change; films; group therapy; audiovisual aids; institutionalized (persons)

To investigate the use of sound films as a therapeutic technique, films dealing with adolescent development from a mental health library were utilized. The subjects were 49 male emotionally disturbed retardates (ages 18 to 45, IQ's 40 to 84) in a psychiatric treatment unit at a state home and training school. Films 20 to 30 minutes long were shown weekly. A dis-

cussion period conducted by a therapist followed. Motivation of both patients and staff appeared improved as a result. Patients were less hostile and tensions decreased as they gained insights into their emotional problems and tried to control their behavior. However, the underlying condition of mental retardation was not improved by the film therapy. (SE)

#### ABSTRACT 11924

EC 01 1924 ED N.A.  
Publ. Date 65 240p.  
Schultz, Morton J.  
**The Teacher and Overhead Projection. A Treasury of Ideas, Uses and Techniques.**  
EDRS not available  
Prentice-Hall, Inc., Englewood Cliffs, New Jersey 07632.

Descriptors: exceptional child education; audiovisual instruction; instructional materials; teaching methods; language arts; mathematics; art; music; physical education; reading; sciences; social studies; homemaker education; languages; industrial arts; vocational education; business education; overhead projectors; audiovisual aids; teacher developed materials; transparencies

Overhead projector design, effective use, placement, and maintenance are described. Working with transparency materials is described and mounting and designing transparencies are discussed. Classroom use is detailed for the following subjects areas: science, mathematics, reading, language arts, social sciences, foreign languages, vocational training and industrial arts, business education, art and music, and others. An appendix lists manufacturers of equipment and materials for overhead projection. (RK)

#### ABSTRACT 11996

EC 01 1996 ED 031 028  
Publ. Date Mar 68 112p.  
**Habilitation through Media.**  
Tennessee University, Knoxville, Department of Special Education and Rehabilitation  
Rehabilitation Services Administration (DHEW), Washington, D. C.  
Office of Education (DHEW), Washington, D. C.  
EDRS mf, hc  
OEC-2-7-000235-0235

Descriptors: exceptional child services; aurally handicapped; multiply handicapped; vocational rehabilitation; audiovisual aids; vocational education; television; programmed instruction; projection equipment; overhead projectors; rehabilitation centers; vocational counseling; occupational information; personal adjustment; equipment evaluation

Introductory remarks on the multiply handicapped deaf and on media precede an address by Arthur G. Norris on the use of media in the vocational education of the deaf. Also presented are discussions of video technology, programmed instruction, projected materials and equipment, the overhead projector, and special devices and materials. Audiovisual media in a rehabilitation

center, implications of media for rehabilitation personnel, and comments on these topics are considered; demonstrations are reported in vocational education or training, personal adjustment, occupational information, and applying for a job. Also included are the following: a committee report on materials evaluation, sources of materials, panel reactions and comments, recommendations from group discussions, a workshop summary, and a roster of planning committee and workshop members. (RJ)

#### ABSTRACT 12008

EC 01 2008 ED 010 107  
Publ. Date Dec 65 299p.  
Stepp, Robert E.  
**A Feasibility Study to Investigate the Instrumentation, Establishment, and Operation of a Learning Laboratory for Hard-of-Hearing Children. Final Report.**  
Nebraska University, Lincoln, Extension Division  
Office of Education (DHEW), Washington, D. C.  
EDRS mf, hc  
OEC-3-16-044 NDEA-VIIB-404  
BR-5-1356

Descriptors: exceptional child research; aurally handicapped; programmed instruction; lipreading; audiovisual instruction; repetitive film showings; learning laboratories; evaluation; student teacher relationship; instructional films; audiovisual aids

Ten deaf and hard of hearing children, aged 5 to 8, were selected to test a self-instructional, self-operating system to develop lipreading skills. The system consisted of three study carrels, an 8-mm cartridge-loading sound motion picture projector, and an observation booth utilizing a one-way mirror. Twenty-five sound and color films stressing single-word, associated-word, and multiple-word instructional patterns, and a series of film tests to measure ability to lipread the vocabulary presented were produced. Each instructional pattern contained presentation, review, and response elements. The system was evaluated through student case histories consisting of nearly 1,000 observations. A second evaluation technique consisted of periodic filming of the reactions of the student while viewing the film and using it to produce a 16-mm split-frame production for studying the stimulus (teacher) and the response (student). The results showed that it is possible to establish a teacher rapport similar to that which currently exists in face-to-face teaching. (HS)

#### ABSTRACT 12029

EC 01 2029 ED N.A.  
Publ. Date May 63 7p.  
Cotter, Katharine C.  
**Audio-Visual Education for the Retarded.**  
EDRS not available  
Elementary School Journal; V63 N8  
P441-7 May 1963

Descriptors: exceptional child research; mentally handicapped; audiovisual in-

struction; instructional materials; state surveys; field trips; teacher attitudes; films; tape recordings; filmstrips; phonograph records; bulletin boards; realia; teaching methods; Massachusetts

A survey of 500 teachers of special classes for the mentally retarded in Massachusetts public schools showed that the audiovisual materials used most, in rank order, were: flat pictures, bulletin boards, real objects, models, recordings, felt board, filmstrips, tape recorders, and motion pictures. Educational television, radio, opaque projectors and slides were rarely used. According to teacher response, 20% of the instructors took full advantage of audiovisual aids. Suggestions are given for classroom experiences in audiovisual education and for field trips. (LE)

#### ABSTRACT 12075

EC 01 2075 ED 010 766  
Publ. Date 65 69p.  
Sands, Theodore; Hicklin, Charles R.  
**The Development and Testing of Instructional Materials for Gifted Primary Pupils. Final Report.**  
Illinois State University, Normal  
Illinois Office of Superintendent of Public Instruction, Normal  
EDRS mf,hc

Descriptors: exceptional child research; gifted; programed instruction; sciences; instructional materials; elementary school students; elementary school science; parent attitudes; audiovisual instruction; mathematics; education; physical sciences; student evaluation

Self-instructional science materials for gifted primary students were developed and used with first- and second-grade students. Units on atomic structure, the nature of molecules, measurement, and mathematics were developed, used, evaluated, and revised over a 2-year period. Lessons were presented through the use of tape players, illustrative materials, and workbooks. Students were selected on the basis of IQ scores and assigned to two groups. Each group used the materials for one-half of the experimental period. All students were pretested, tested at the end of the fourth week, and post-tested for achievement with instruments developed for the study. Other data were obtained from teacher evaluation forms and questionnaires completed by teachers and parents. Significant gains, at the .05 level, were obtained for the units concerned with mathematics, atoms, and measurement. A majority of the parents favored the use of the materials and indicated that the children developed interest through their studies. (AG)

#### ABSTRACT 12100

EC 01 2100 ED N.A.  
Publ. Date Feb 68 3p.  
Driscoll, John  
**Educational Films and the Slow Learner.**  
EDRS not available  
Mental Retardation; V6 N1 P32-4 Feb 1968

Descriptors: exceptional child research; mentally handicapped; audiovisual in-

struction; teaching methods; learning characteristics; educable mentally handicapped; student attitudes; instructional films; secondary school students; concept formation

Three varied films designed to test film learning abilities were shown to 402 mentally retarded children in 21 junior and senior high public schools (mean ages 13-2 and 15-10, mean IQ's 67.9 and 69.2 respectively). All children were tested orally and individually in the categories of factual learning, attitudinal learning, and concept learning. Pre-post gains on factual learning questions for all three films were significant beyond the .001 level. Pre-post differentials for attitudinal learning were highly significant; concept learning was measured only in posttesting with adequate to good results. Conclusions drawn from the results were as follows: story films can teach concepts of behavior effectively; films need not be short; animation does not teach better than live photography; story line is more important than humor and audio and visual cueing; and color is no more effective than black and white. Further conclusions were that retarded children could generalize rules of behavior from ideas and stories presented visually; children of very limited intelligence could describe filmed actions but could not derive concepts; and factual learning increased when the film was shown twice. (LE)

#### ABSTRACT 20039

EC 02 0039 ED 003 496  
Publ. Date 63 74p.  
Gordon, Oakley J. and Others  
**Challenging the Superior Student by Making the Study of Russian Available in the Elementary School Curriculum via Television.**  
Utah University, Salt Lake City  
Office of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
OEG-7-54-0050-024 NDEA-VIIA-129

Descriptors: exceptional child research; gifted; audiovisual instruction; teaching methods; languages; elementary school students; instructional television; language instruction; conventional instruction; Russian; modern languages; academic achievement; student interests; student behavior; cocurricular activities

Over a 3-year period, this study investigated many facets of the achievement, behavior, and interests of groups of students who began the extracurricular study of the Russian language in the fourth and fifth grades. In addition, several control groups were studied to allow comparisons of the effects of this language program. It was concluded that, regardless of IQ or whether the language was taught by television or with a live instructor, the students taking Russian appeared to have profited from the experience. Not only did they gain considerable knowledge of Russian but they also appeared to have improved in their regular classroom work and behavior as a result of the experience. Regular classroom work of the average students tak-

ing Russian was performed as well as, or better than, classroom work of the control group of superior students who were not taking the language. Other results are reported in terms of seven hypotheses tested. (JC)

#### ABSTRACT 20072

EC 02 0072 ED N.A.  
Publ. Date May 69 6p.  
Geisberger, Friedrich J.  
**Use of Tape Recordings in Germany for Auditory Training and Auditory Education.**  
EDRS not available

Volta Review; V69 N5 P308-13 May 1969  
Descriptors: exceptional child education; aurally handicapped; tape recorders; audiovisual aids; hearing loss; listening comprehension; language instruction; language rhythm; auditory training; aural learning; instructional materials

Ideas on how tape recordings can be adjusted for use with children who have usable residual hearing are given. Advantages and procedures are stated for the use of the portable tape recorder in offering opportunities to listen and analyze everyday material, to establish an immediate relationship between the student and the accoustical world (recording out-of-doors experiences), and to monitor student's speech and reading which can then be replayed for classroom critiques. Proper equipment and knowledge of techniques are also cited as being essential to successful use of the tape recorder. (WW)

#### ABSTRACT 20073

EC 02 0073 ED N.A.  
Publ. Date Apr 69 5p.  
Happ, F. William  
**Multi-Media Services for Retardates in Institutions.**  
EDRS not available  
Top of the News; V25 N3 P268-72 Apr 1969

Descriptors: exceptional child services; mentally handicapped; audiovisual aids; institutionalized (persons); singing; educable mentally handicapped; trainable mentally handicapped; library services; library materials; reading materials; high interest low vocabulary books; instructional materials

The needs of institutionalized educable and trainable retardates for direct multimedia library services are defined in terms of the characteristics of each group. Suitable materials and activities are suggested to meet the needs of each. (LE)

#### ABSTRACT 20144

EC 02 0144 ED N.A.  
Publ. Date Mar 69 3p.  
Morris, June E.; Nolan, Carson Y.  
**Materials and Techniques for Study.**  
EDRS not available  
Education of the Visually Handicapped; VI N1 P8-11 Mar 1969

Descriptors: exceptional child research; visually handicapped; study habits; instructional materials; aural stimuli; au-



audiovisual aids; tape recordings; phonograph records; study skills

To analyze textbook content to determine the format which would provide for the most efficient use of recorded material, and to explore study techniques of sophisticated students who use aural material, 18 visually handicapped students were asked to present their views on textbook format and study techniques. Each student submitted a list of textbook sections which he felt should be recorded. Prefaces, acknowledgements, introductions, footnotes, and suggested activities sections were selected for recording, mainly because this type of information was not held to be the kind to which the student would need to constantly refer. Material which had to be constantly referred to was considered more useful in written form. Each student answered 19 questions on study techniques with the consensus being as follows: they preferred to study one subject in any one session; taking notes on aural material was helpful, especially in reviewing for tests; graphics presented the greatest study problem; and two real problems in using recordings were finding the place and referring back to something. Some suggestions for recorded material were that it contain more complete indexing information, that headings be more conspicuous, and that pauses be left for expected notation. (JM)

#### ABSTRACT 20149

EC 02 0149 ED N.A.  
Publ. Date Nov 69 16p.  
Ferguson, Donald G.  
**Teacher Assessment of Project Hurdle.**  
EDRS not available  
American Annals of the Deaf; V114 N5  
P946-61 Nov 1969

Descriptors: exceptional child education; aurally handicapped; instructional materials; teacher attitudes; instructional media; multimedia instruction; program evaluation

To determine the effects of Project Hurdle, questionnaires completed by 148 teachers of the deaf were analyzed. The project intended to indicate the promise of educational media, to implement new uses of media, and to instruct in the utilization of new equipment. The findings were that the overhead projector received much greater utilization after the project (47% gain in great frequency of usage); use of the heat copier and dry mount press increased; use of lettering sets and photographic equipment did not show unusual gains; and the chalkboard was used less because of the substitution of other media. In general, all equipment included received greater utilization, and availability usually increased. After the project, the majority of the teachers felt that their teaching had improved or that educational media were effective supplements, and 93% felt that awareness of possibilities had increased. Comments were mixed, however, and examples are included as are tables of findings. (JM)

#### ABSTRACT 20201

EC 02 0201 ED N.A.  
Publ. Date Jul 65 75p.  
Nye, P. W.

##### **An Investigation of Audio Outputs for a Reading Machine.**

American Foundation for the Blind, New York, New York;  
California Institute of Technology, Pasadena, Booth Computation Laboratory  
Rehabilitation Services Administration (DHEW), Washington, D. C.

EDRS not available

The American Foundation for the Blind, 15 West 16th Street, New York, New York 10011.

American Foundation for the Blind Research Bulletin Number 10, July 1965.

Descriptors: exceptional child research; visually handicapped; tests; reading; electronic equipment; blind; auditory perception; aural stimuli; reading processes; audiovisual aids; artificial speech; Parametric Artificial Talking Device

Three experiments compared a data compression to a speech-like output in a reading machine for the blind. Fifty subjects, aged 16 to 26, tested the codes associated with the Parametric Artificial Talking Device (PAT), Multidimensional Optaphone (MDO), Variable Volume Optaphone (VVO), Wuhzi Natural Speech Source, and the conventional Optaphone. Comparison of recognition accuracy of sounds, similar and dissimilar words, and the substitution of nonsense words with similar vowel-consonant make-up for regular words indicated that the MDO and PAT outputs were significantly superior to the optaphone and the VVO signals. Results further demonstrated that, the more speech-like the sounds produced, the easier they were to understand but the technical problems of production were more difficult. One subtest tested the speed of discrimination for signals of five dimensions (direction, noise, modulation, intensity, and frequency) compared to the speed of comprehension on the last three dimensions. The five dimension signals were perceived more quickly and accurately than the three dimension ones. Another subtest constructed a flexible system to provide a range of different outputs when two kinds of input signals (letter scanning and feature detection) were used. (KH)

#### ABSTRACT 20203

EC 02 0203 ED N.A.  
Publ. Date Nov 66 3p.

Withrow, Frank B.

##### **Status of 8mm Motion Pictures in the Classroom.**

EDRS not available

Volta Review; V68 N9 P670-2 Nov 1966

Descriptors: exceptional child education; aurally handicapped; films; audiovisual aids

Educational films are discussed with emphasis on the advantages of and problems with 8 millimeter films. (RJ)

#### ABSTRACT 20207

EC 02 0207 ED N.A.  
Publ. Date Nov 66 4p.

Diedrich, William M.

##### **Use of Video Tape in Teaching Clinical Skills.**

EDRS not available

Volta Review; V68 N9 P644-7 Nov 1966

Descriptors: exceptional child education; speech therapy; audiovisual aids; video tape recordings; self evaluation; professional education; speech therapists; student evaluation; evaluation methods; teaching methods

Useful features of video tapes in teaching clinical skills mentioned are immediate feedback, recording therapy in a natural setting, provision for intensive study of the therapy process, and reuse of the tapes. Problems encountered when students or patients see themselves are considered. Student and parent experiences in using the tapes are recounted and the use of a training manual and lectures to accompany the tapes is discussed. (RJ)

#### ABSTRACT 20329

EC 02 0329 ED N.A.  
Publ. Date Feb 68 118p.

##### **Conference Report; Responsive Environment Learning Centers: Feedback from the Field.**

Responsive Environments Corporation, Englewood Cliffs, New Jersey

EDRS not available

Responsive Environments Corporation, Englewood Cliffs, New Jersey 07632.

Descriptors: exceptional child education; teaching methods; audiovisual aids; educational technology; programmed instruction, typewriting; autism; mentally handicapped; reading instruction; case studies (education); learning activities; Edison Responsive Environments

A meeting of educators utilizing Responsive Environment Learning Centers includes speeches and discussions on Edison Responsive Environments (ERE--the talking typewriter). Topics treated are the following: a panel program on beginning and remedial language arts; ERE as a research instrument in programing; the relationship of ERE to the education profession; the response of teenagers to remedial programs; the role of the public aid agency in ERE programs; and project implementation. A speech by Marshall McLuhan focuses on the human sense, the environment, and technological change. Exceptional learners, a panel discussion, and these subjects are also presented: childhood autism, adaptation of the phonovisual method for the ERE, use of the ERE in England, use of the ERE with the retarded, future plans, comments on psychological development by J. McVicker Hunt, and closing remarks. (RJ)

#### ABSTRACT 20560

EC 02 0560 ED N.A.  
Publ. Date Nov 66 14p.

Heinich, Robert

##### **Application of Systems Concepts to Instruction.**

EDRS not available

American Annals of the Deaf; V111 N5  
P603-16 Nov 1966

Descriptors: exceptional child education; audiovisual instruction; curriculum; pro-

programed instruction; instructional technology; instructional media; curriculum planning; student teaching; programed instruction; curriculum development; media technology; systems analysis; systems approach; systems concept; systems development

A system is defined and the application of the systems approach to instruction and problems which have arisen in the relationship of parts to the whole with reference to media are discussed. Consideration is given to the fact that originally conceived as aids, audiovisual media are now self-contained and assume a major part of the teaching job, and that many decisions previously made on the classroom level have been shifted to the curriculum planning level, resulting in two classifications of instructional activity--mediated instruction and classroom instruction. This division permits three approaches, ranging from the classroom teacher's having complete responsibility for media used in the classroom, through shared responsibility, to completely programed or mediated teaching. Suggestions for teacher training programs are that they be designed to satisfy these three approaches, and that every student teacher be required to teach a substantial piece of content in his major field in mediated form. The problem of overloaded input in the systems approach and the preparation of curriculum and all materials by teams of specialists and submitted to local school systems to accept or to reject are also considered. (JB)

#### ABSTRACT 20576

EC 02 0576 ED N.A.  
Publ. Date Nov 66 4p.  
Forsdale, Joan Rosengren  
**8mm Film and the Education of Handicapped Children.**  
EDRS not available  
American Annals of the Deaf; V111 N5  
P622-5 Nov 1966

Descriptors: exceptional child education; audiovisual instruction; instructional materials; films; handicapped children; repetitive film showings; independent study; projection equipment

The 8mm film can make a contribution to the education of the handicapped child. It can be used by the individual child unassisted, beginning at kindergarten level, because the cartridge-load variety requires no threading. The student can run the film over in a continuous loop until he recognizes its content. Designed to be viewed in rear-screen fashion, the student can move close into the image, can view the films in a normally lighted room, and can watch without adult supervision or instruction. Films can teach lipreading, fingerspelling, writing, calisthenics, and sports. Any teacher or parent can easily shoot the film and have processing done at a drugstore; both sound and silent instructional films are also commercially available. (GD)

#### ABSTRACT 20627

EC 02 0627 ED 003 130  
Publ. Date Oct 62 108p.  
S rome D.; Kubis, John J.

#### A Survey of Visual Aids in Schools and Classes for the Deaf in the United States.

Gallaudet College, Washington, D. C.  
Office of Education (DHEW), Washington, D. C.  
EDRS mf, hc  
NDEA-VIIB-200

Descriptors: exceptional child research; administration; national surveys; instructional materials; audiovisual aids; aurally handicapped; questionnaires; interviews; instructional aids; administrative personnel; classroom materials; educational finance; teacher education; educational facilities

A survey was made concerning visual presentation devices, their use in the education of the deaf, and their special problems. Questionnaires were sent to all schools and classes for the deaf in the United States during the fall semester of 1961-62; 55.9% responded. Also a number of superintendents and other administrators were interviewed. Programs were rated and responses coded to assess and validate the data received. The data represented 73% of the enrolled deaf students. The schools and classes were found to have adequate facilities and few complaints on budgets. Visual aid materials were shown to be a problem and somewhat scarce. Also, teacher training deserved consideration for instruction on use of visual aids. Suggested approaches to these problems are that workshops be planned and support for better materials be requested. (RS)

#### ABSTRACT 20788

EC 02 0788 ED 029 973  
Publ. Date Dec 68 43p.  
Sandhofer, Richard G.; Nichols, Jack L., Ed.  
**The Development of Specialized Educational Programs for Poor Learners for Use in Non-Educational Settings. Final Report.**  
Minneapolis Rehabilitation Center, Inc., Minnesota, Research and Development Division  
Office of Education (DHEW), Washington, D. C.;  
United Fund of Minneapolis, Minnesota  
EDRS mf, hc  
OEG-6-85-088  
BR-5-0191

Descriptors: exceptional child education; adult vocational education; audiovisual instruction; autoinstructional aids; autoinstructional programs; experimental programs; individualized instruction; job skills; job training; material development; custodial training; program descriptions; programed instruction; machinists; slow learners; vocational rehabilitation; vocational education; instructional materials

Automated audio visual vocational training courses for duplication machine operator and janitor occupations are presented for poor learners to use in rehabilitation centers, state hospitals, etc. A description of program development includes: surveying pertinent literature in the field of program learning of occupations; visiting business and industrial

concerns to determine trainee responsibilities; training curriculum development personnel; preparing, testing and revising subject matter; selecting a presentation system; integrating the content and presentation system; and monitoring trainee performance in the completed program. The teaching system used contains programed question and response booklets, tape recordings, color slides, structured practice, and human supervision. The conclusion that programs imparted the necessary skills to poor learners, and could be effectively used in non-educational setting is made. Individualized vocational training for poor learners is noted to have some distinct advantages, along with techniques used with similar job training programs for other occupations. The development and reproduction of the programs is reported to be time-consuming, difficult and costly. (FP)

#### ABSTRACT 20943

EC 02 0943 ED 032 668  
Publ. Date 68 47p.  
**1968 Summary Report; Implications for the Use of Television in Schools for the Deaf.**  
Tennessee University, Knoxville, Southern Regional Media Center for the Deaf  
EDRS mf, hc

Descriptors: exceptional child services; aurally handicapped; educational television; audiovisual aids; broadcast reception equipment; production techniques; special schools; televised instruction; engineering technology; broadcast industry; program planning; closed circuit television; video tape recordings; engineering technicians; copyrights

The report of a seminar for educators of the deaf on educational television considers sources of programs, copyright problems, cooperative agencies, and sources of financial support. A discussion of technology explores origination facilities and equipment, distribution systems, display systems and special considerations, videotape compatibility, the implications of color, and portable and special equipment. Descriptions of programs utilizing television are presented by the National Technical Institute for the Deaf, the Arkansas School for the Deaf, and the Tennessee School for the Deaf. Suggestions pertinent for program planning are included. (RJ)

#### ABSTRACT 20989

EC 02 0989 ED N.A.  
Publ. Date Jun 66 8p.  
Stepp, Robert E.  
**A Speechreading Laboratory for Deaf Children.**  
Nebraska University, Lincoln, Teachers College  
EDRS not available  
Volta Review; V68 N6 P408-15 Jun 1966

Descriptors: exceptional child research; programed instruction; aurally handicapped; learning; elementary school students; lipreading; audiovisual aids; autoinstructional methods; films; positive reinforcement

To study the feasibility of using a type of programed instruction for self study by the acoustically handicapped, 10 children (aged 5 to 8) were given filmed speechreading instruction. The children ranged from hard of hearing to profoundly deaf and from low average to superior intelligence. A speechreading laboratory, planned as an extension of the teacher, was designed containing an 8mm motion picture projector and a set of headphones. The children operated the cartridge film upon assignment word, and multiple word emphasis approaches were developed and used for the study. Reinforcement and confirmation of the learner and his progress were structured into the films, sometimes requiring overt responses. Results of the program, as recorded on film, indicated that the hearing impaired children could assume responsibility for some of their learning (unit vocabularies, for example) and that speechreading could be programed for individual learning. (JD)

#### ABSTRACT 21021

EC 02 1021 ED N.A.  
Publ. Date Jul 65 40p.  
**Audio-Visual Material on Mental Retardation.**  
National Association for Retarded Children, New York. New York  
EDRS not available  
National Association for Retarded Children, 420 Lexington Avenue, New York, New York 10017.

Descriptors: exceptional child education; mentally handicapped; teacher education; parent education; mass media; films; catalogs; audiovisual aids; audiovisual instruction; instructional films

Thirty-six films, two film strips, and two recordings are listed, and each listing contains rental and purchase cost, length, sound and color status, content, evaluative commentary, recommended audience, and name and address of source. Subjects include camping, community programs, children's films, dancing, dental care, Down's Syndrome, teaching methods, group therapy, mental retardation, multiple handicapped, phenylketonuria, parent counseling, public health and nursing, recreational activities, research, severe retardation, testing, training programs, and vocational training. (MS)

#### ABSTRACT 21116

EC 02 1116 ED 025 593  
Publ. Date 67 196p.  
**Annotated Bibliography of Instructional Media; Vocational Education for the Deaf. Training Manual. A Report of the Workshop for Improving Instruction of the Deaf (Ball State University, Muncie, Indiana, July 10-August 11, 1967).**  
Ball State University, Muncie, Indiana  
Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch  
EDRS mf, hc

Descriptors: exceptional child education; aurally handicapped; annotated bibliographies; audiovisual aids; business educa-

tion; conference reports; instructional materials; educational resources; graphic arts; home economics; instructional media; metal working occupations, occupational guidance; vocational education; woodworking; evaluation; Workshop for Improving Instruction of the Deaf

The purpose of this bibliography is to identify and to annotate the sources which can be helpful in presenting materials to deaf students and to reinforce learning in various vocational areas. Vocational resources for selected areas of vocational education were reviewed, evaluated, and annotated by two committee members in each of the following sections: graphic arts, metals, woods, home economics, and business education. Committee members were qualified vocational teachers of the deaf, each having an average of 20 years of experience in the field. Committee members reviewed over 700 resource items including films, filmstrips, slides, transparencies, practice kits, periscope programs, flat pictures, cartridge films, bulletins, and course outlines. Of this number, 61% were recommended as instructional or informative media to be used in classrooms for the deaf. Related documents are VT 005 014 and VT 005 015. (CH)

#### ABSTRACT 21154

EC 02 1154 ED N.A.  
Publ. Date 70 5p.  
Brown, Jerome; Arkebauer, Herbert J.  
**Using the Language Master with Hearing Impaired Children.**  
EDRS not available  
Teaching Exceptional Children; V2 N2 P81-5 Win 1970

Descriptors: exceptional child research; aurally handicapped; instructional materials; teaching machines; audiovisual aids; programed instruction; self pacing machines; autoinstructional aids; language instruction; vocabulary development; Language Master

The use of the Language Master machine for vocabulary instruction with hearing impaired children was examined to compare its effectiveness with traditional teaching procedures. The results showed no significant differences in vocabulary gains between the two methods, but the authors suggested that the use of the Language Master provides the additional advantages of freeing the teacher from certain routine activities, and enabling the child to assume increased independence and participation in the learning process. (RD)

#### ABSTRACT 21228

EC 02 1228 ED 003 547  
Publ. Date 60 29p.  
Driscoll, John P.  
**The Effects of Mental Retardation on Film Learning.**  
California University, Los Angeles  
Office of Education (DHEW), Washington, D. C.  
EDRS mf, hc  
OEG-7-04-082 NDEA-VIIA-365

Descriptors: exceptional child research; mentally handicapped; teaching methods;

instructional materials; audiovisual instruction; educable mentally handicapped; instructional films; sequential learning; material development; learning experience; evaluation techniques; secondary school students; vocational education; consumer education; civics; films

The effects of mental retardation upon film-learning ability was investigated. Films which covered areas of vocational orientation, consumer education or economics, and civics were produced. The study sample was made up of 402 subjects from 21 junior and senior high schools (average age equals 14 years, mean IQ equals 68). Tests included oral, individual, and visual procedures. The responses were recorded and analyzed. The results indicated that special films can be effective as a teaching method for educable mentally retarded pupils. It was suggested that further development include recaps and recalls. (RS)

#### ABSTRACT 21236

EC 02 1236 ED 003 524  
Publ. Date 60 81p.  
Carter, Lamore J. and Others  
**A Comparative Study of the Effectiveness of Three Techniques of Film Utilization in Teaching a Selected Group of Educable Mentally Retarded Children Enrolled in Public Schools in Louisiana.**  
Grambling College, Louisiana  
Office of Education (DHEW), Washington, D. C.  
EDRS mf, hc  
NDEA-VIIA-272

Descriptors: exceptional child research; mentally handicapped; teaching methods; instructional materials; audiovisual instruction; educable mentally handicapped; comparative analysis; films; special classes; program evaluation

The relative effectiveness of three audiovisual techniques was studied with mentally retarded public school students. The techniques, especially designed to overcome the traits of mental retardates, consisted of conventional film narrated by a teacher, unnarrated film with responses from children on the sound track, and silent film during which students provided their own unrestrained comments. Special classes of educable mentally retarded children provided 104 subjects. Four matched groups were established to provide an experimental group for each of the film techniques and a control group. Data were gathered from pre- and posttests and recognition test scores. Findings indicated that use of any of the experimental film techniques was no more effective for teaching educable mentally retarded children than teaching the same unit without films. (AL)

#### ABSTRACT 21259

EC 02 1259 ED 002 829  
Publ. Date 60 125p.  
Gaeth, John H. and Others  
**Verbal Learning Among Children With Reduced Hearing Acuity.**  
Wayne State University, Detroit, Michigan



Office of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
CRP-289

Descriptors: exceptional child research; teaching methods; aurally handicapped; audiovisual instruction; verbal learning; learning processes; sensory experiences; multisensory learning; achievement; stimulus devices; verbal ability; hard of hearing; verbal learning; elementary grades; secondary grades

Visual-auditory method, for teaching were tested to compare learning ability and auditory training with conventional unisensory teaching. Subjects were 2,500 aurally handicapped and normal children (grades 2 to 10). The aurally handicapped children all had sufficient residual hearing to respond to amplified stimulation. In the experimental procedure, the children were asked to memorize lists of simple words presented visually by means of a memory drum, auditorily by the use of a tape recorder, and then in a simultaneous visual-auditory presentation. The subjects were tested individually, except in one group experiment. Although no definite conclusions were reached regarding overall benefits of the multisensory learning techniques employed, the project attacked the problem of understanding how children can use audition and vision in learning verbal material and how hearing loss affects this process. (JH)

#### ABSTRACT 21390

EC 02 1390 ED N.A.  
Publ. Date Apr 69 6p.

Gordon, Margaret T.  
**An Experiment in Audio and Audio-Visual Group Therapy.**

EDRS not available  
British Journal of Disorders of Communication; V4 N1 P83-8 Apr 1969

Descriptors: exceptional child services; electronic equipment; speech therapy; language handicapped; tape recordings; slides; case records; audiovisual aids; adults; group therapy; aphasia

A type of audio and audiovisual group therapy employing an auditory pattern presented through earphones with a visual cue is reported. Laryngectomized patients learned to use a high standard of oesophageal voice without forcing, and dysphasic patients improved after training and tended to correct more phonemic errors with each performance. Words practiced in audiovisual sessions were reinforced later by reading and writing. Those with comprehension difficulties were more alert following treatment indicating possibilities for training auditory perception and recognition. The extremely flexible apparatus has not yet been fully explored. (Author/JM)

#### ABSTRACT 21455

EC 02 1455 ED 034 334  
Publ. Date Feb 69 130p.

**Workshop II: Video Technology & Programs for the Deaf; Current Developments & Plans for the Future.**

Southern Regional Media Center for the Deaf, Knoxville, Tennessee;

Tennessee University, Department of Special Education And Rehabilitation  
Office of Education (DHEW), Washington, D. C., Bureau of Education for the Handicapped  
EDRS mf,hc

Descriptors: exceptional child education; aurally handicapped; instructional television; video tape recordings; electronic equipment; media technology; educational objectives; programed instruction; deaf education; equipment utilization; teacher education; parent education; public affairs education

The Workshop on Video Technology (1969) sponsored by the Southern Regional Media Center for the Deaf explored uses of video technology in deaf education. An introductory lecture points out the potential effectiveness of video technology for gearing programs to individual needs, specifically the needs of the deaf. The necessity for formulating specific objectives in utilizing video hardware, as opposed to random experimentation is considered, and practical experience in industry is outlined in a presentation which describes the use of videotape in training personnel in a telephone company. Limitations and advantages of using videotape in deaf education, and demonstrations presented by institutions of deaf education concerning application of video technology in equipment, techniques for the classroom teacher, and the use of closed circuit television are discussed. A final paper summarizes the workshop in terms of current progress and suggested areas for research. (JB)

#### ABSTRACT 21509

EC 02 1509 ED 030 672  
Publ. Date Apr 69 8/p.

Fenton, Edwin and Others

**A High School Social Studies Curriculum for Able Students: An Audio-Visual Component to a High School Social Studies Curriculum for Able Students. Final Report.**

Carnegie-Mellon University, Pittsburgh, Pennsylvania, Social Studies Curriculum Center

Office of Education (DHEW), Washington, D. C., Bureau of Research  
EDRS mf,hc

OEC-3-10-103, OEC-6-10-130  
BR-5-0560, BR-5-0655

Descriptors: exceptional child education; gifted; audiovisual aids; curriculum design; curriculum development; curriculum evaluation; curriculum planning; curriculum problems; economics; history; humanities; instructional aids; political science; secondary education; sequential programs; social studies; social studies units

A project to develop a sequential and cumulative social studies curriculum for able students in grades 9-12 was carried out by Carnegie-Mellon University in partnership with the Pittsburgh Public Schools. The general goal of the curriculum was to help each student develop to the limit of his ability into an independent thinker and an informed, responsible citizen and was divided into four subgr-

oups: attitudes, values, inquiry skills, and knowledge. The courses prepared were comparative political-economic systems (9th grade), the shaping of western society and studies of the non-western world (10th grade), the American experience (11th grade), and an introduction to the behavioral sciences and the humanities in three cities: Ancient Athens, Renaissance Florence, and Modern New York (12th grade). A book of readings, an audiovisual kit, a teacher's manual, and an examination program were developed for each course. Two books and 12 films were completed to explain to teachers the curriculum and methods of using it. The results from testing the curriculum in the Pittsburgh Public Schools indicated that students in experimental-curriculum classes made significantly greater gains than did those in control classes. (LH)

#### ABSTRACT 21538

EC 02 1538 ED N.A.  
Publ. Date Nov 65 7p.

Saleh, Harold

**Sights and Sounds: An Auditory Training Program for Young Deaf Children.**

South Connecticut State College, New Haven, Speech And Hearing Department  
Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch

EDRS not available

American Annals of the Deaf; V110 N5  
P52-54 Nov 1965

Paper Presented at the Symposium on Research and Utilization of Educational Media - Teaching the Hearing Impaired (Lincoln, Nebraska, May 23-25, 1965).

Descriptors: exceptional child research; aurally handicapped; auditory training; auditory visual tests; auditory perception; visual perception; audiovisual instruction; receptive language; sound tracks; instructional films; instructional materials; educational methods

An auditory training project produced six primary level filmstrips and records for simultaneous presentation of gross sound elements to include sights and sounds from the farm, the home, the city, a concert, the circus, and Christmas time. Each filmstrip presents the story twice (the first version captioned, the second without captions) followed by review frames. The first band of the record narrates the complete story; the second and third bands contain only the twelve sounds selected for testing purposes. The sounds appear in different order on the two bands to prevent memorization of sequence. A subjective evaluation of an experimental group of 10 children showed an almost 50% increase in the number of correct responses indicating that the combination of filmstrips and recordings is effective in teaching gross sounds. (MW)

#### ABSTRACT 21539

EC 02 1539 ED N.A.  
Publ. Date Nov 65 5p.  
Withrow, Frank B.

**The Use of Audiovisual Techniques to Expand Lipreading and Auditory Experiences of Young Deaf Children.**

Illinois School for the Deaf, Jacksonville  
Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch

EDRS not available

American Annals of the Deaf; V110 N5  
P523-7 Nov 1965

Paper Presented at the Symposium on Research and Utilization of Educational Media for Teaching the Hearing Impaired (Lincoln, Nebraska, May 23-25, 1965).

Descriptors: exceptional child education; aurally handicapped; autoinstructional aids; instructional materials; audiovisual instruction; auditory training; lipreading; language development; teaching methods

The project was designed to provide practice in lipreading and auditory stimuli using autoinstructional materials. The four types of instructional materials emphasized were 8mm movies, colored opaque pictures, filmstrips and auditory tapes, and a cross reference system. These materials have the advantageous characteristics of quick accessibility, easy retrievability, simple adaptability to classroom or autoinstructional use, and teacher control of the order of presentation by means of the cross-indexing. Through these autoinstructional materials, lipreading and auditory training are reinforced and the child is required to participate actively. (MW)

**ABSTRACT 21542**

EC 02 1542 ED N.A.  
Publ. Date Nov 65 10p.

**Brehman, George E., Jr.  
Programmed Discrimination Training for Lipreaders.**

Illinois University, Urbana, Institute for Research On Exceptional Children  
Office of Education (DHEW), Washington, D. C.

EDRS not available

American Annals of the Deaf; V110 N5  
P553-62 Nov 1965

Paper Presented at the Symposium on Research and Utilization of Educational Media for Teaching the Hearing Impaired (Lincoln, Nebraska, May 23-25, 1965).

Descriptors: exceptional child research; aurally handicapped; lipreading; programmed instruction; programed materials; educational methods; discrimination learning; autoinstructional aids; instructional films; teaching machines; audiovisual instruction; visual learning; Perceptoscope

The project was designed to construct and test programs for teaching lipreading using techniques in discrimination learning and programed instruction. The instrument used was the Perceptoscope with a teaching machine adaptor, and the programed materials consisted of thirteen 16mm films 400 feet in length. The subject watched the formation of sounds from various angles, chose the correct

sound and formation pattern, and eventually attempted to duplicate what he saw while watching himself in a 90 degree mirror. The prompting stimuli were then slowly decreased. Results are not included as the project was not completed at the time of the report. (MW)

**ABSTRACT 21543**

EC 02 1543 ED N.A.  
Publ. Date Nov 65 8p.

Nace, John G.

**Teaching Card Punch Operators Through the Use of Filmed Lessons.**

Pennsylvania School for the Deaf, Philadelphia

Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch

EDRS not available

American Annals of the Deaf; V110 N5  
P563-70 Nov 1965

Paper Presented at the Symposium on Research and Utilization of Educational Media for Teaching the Hearing Impaired (Lincoln, Nebraska, May 23-25, 1965).

Descriptors: exceptional child research; aurally handicapped; job training; programed instruction; educational methods; audiovisual instruction; instructional films; job skills; card punch operators

The project was designed to test the feasibility of teaching card punch operation to deaf adults and students through filmed lessons. The program's objectives were initial training and proficiency building using the method of ten films containing one to five units, making up a total of 31 teaching units. The materials included ghosted fingers over keyboard positions, touch method drills, gradually more difficult keyboard exercises, and skill and speed drills regulated by the film. The experimental project proved that filmed lessons were successful and that future films should be developed with the deaf in mind. It was noted that instructors who understand the language problems of the deaf were the most efficient. (MW)

**ABSTRACT 21544**

EC 02 1544 ED N.A.  
Publ. Date Nov 65 6p.

Delgado, Gilbert L.; Gough, John A.

**Some Problems in Audiovisual Education for the Deaf.**

Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch

EDRS not available

American Annals of the Deaf; V110 N5  
P579-84 Nov 1965

Paper Presented at the Symposium on Research and Utilization of Educational Media for Teaching the Hearing Impaired (Lincoln, Nebraska, May 23-25, 1965).

Descriptors: exceptional child education; aurally handicapped; educational needs; audiovisual instruction; educational problems; instructional materials; material development; innovation; research needs  
Three basic factors hampering the effective utilization of audiovisual techniques in the education of the deaf are described as the following: a systems ap-

proach to educating the deaf has never been explored; there is a scarcity of suitable specialized materials; and existing materials are heavily dependent on auditory communication. Various steps that must be taken to alleviate the problem are described. It is noted that equipment is available but facilities to make full use of audiovisual instruction must be incorporated into schools for the deaf, teachers of the deaf need more training in audiovisual methods as well as administrative support, and integration of effort in media research is needed to develop the most effective means of educating the deaf child. (MW)

**ABSTRACT 21599**

EC 02 1599 ED N.A.  
Publ. Date Feb 70 8p.

Altschuler, David

**Use of Video Tape in Programs for the Deaf.**

EDRS not available

Volta Review; V72 N2 P102-6 Feb 1970

Descriptors: exceptional child education; aurally handicapped; video tape recordings; instructional media; remedial programs; educational technology; programed instruction; audiovisual instruction; visual learning

The video tape recorder can be used effectively in the education and rehabilitation of deaf persons. Although it has limitations and is costly, the results obtained are worthwhile when used as a part of a learning, rehabilitation, or counseling program. It reportedly permits the individual to see himself as others see him, and also to evaluate his own progress. Students who participated in planning the tape, as well as taking part, gained the most from the experience. Video tape has a great potential when used efficiently and intelligently. (Author)

**ABSTRACT 21778**

EC 02 1778 ED 035 157  
Publ. Date 68 65p.

**Mental Retardation Film List.**

National Library of Medicine, Bethesda, Maryland;

National Institute of Health, Bethesda, Maryland;

Public Health Service (DHEW), Washington, D. C.

Rehabilitation Services Administration (DHEW), Washington, D. C.;

Social and Rehabilitation Service (DHEW), Washington, D. C.

EDRS mf,hc

Descriptors: exceptional child services; mentally handicapped; films; bibliographies; audiovisual aids

A list of films on mental retardation includes titles, publication information, physical descriptions, language revisions when other than English, series reference, technical description of film content, sale source, and distributor. Films intended for the general public are grouped under the heading Nonprofessional; others are listed as Professional. A distributor list is also provided. (RJ)

**ABSTRACT 21809**

EC 02 1809 ED N.A.  
 Publ. Date Nov 69 4p.  
 Viggiani, James C.  
**The Use of Photography to Enhance Learning in the Classroom.**  
 EDRS not available  
 Special Education in Canada; V44 N1 P13-6 Nov 1969

Descriptors: exceptional child education; audiovisual aids; photography; films; teaching methods; instructional materials; educational technology; multisensory learning

The need for a multisensory approach to learning is emphasized with data describing the present influence of television on the child, the nature of effective learning experiences, and the results of a study using educational films to teach slow learners. Information concerning the use of eight millimeter films and photographs in the classroom includes teaching objectives, recommended areas of use, and factors to be considered in producing teacher-made films for classroom use. (RD)

**ABSTRACT 21831**

EC 02 1831 ED N.A.  
 Publ. Date Mar 70 5p.  
 Bolesta, Burl  
**Multimedia in the Preschool.**  
 EDRS not available  
 Volta Review; V72 N3 P175-9 Mar 1970

Descriptors: exceptional child education; aurally handicapped; instructional materials; multimedia instruction; preschool programs; audiovisual aids; overhead projectors; film strips

The multimedia approach in preschool programs is described. Effective teaching aids discussed are teacher prepared transparencies, slides, flash cards, flannel board, films, books, and clay. Ideas for using the aids are incorporated. (JM)

**ABSTRACT 21946**

EC 02 1946 ED 036 925  
 Publ. Date Feb 69 20p.  
**Teaching and Training Aids for Orthopedic School Programs.**  
 Wisconsin State Department of Public Instruction, Madison, Bureau for Handicapped Children  
 EDRS mf,hc

Descriptors: exceptional child education; physically handicapped; instructional materials; teacher developed materials; orthopedically handicapped; self care skills; communication skills; manipulative materials; audiovisual materials

Directions are given for making teaching aids for physically handicapped children. Self help materials aid dressing and communication; modified instructional materials teach visual, speech, and reading skills. Both types of materials are suggested for other uses as well. (JD)

**ABSTRACT 22187**

EC 02 2187 ED 037 839  
 Publ. Date 67 242p.  
**Symposium on Research and Utilization of Educational Media for Teaching: The Educational Media**

**Complex (Nebraska Center for Continuing Education, Lincoln, Nebraska, April 10-12, 1967).**

Nebraska University, Lincoln, Department of Educational Administration  
 Office of Education (DHEW), Washington, D. C., Captioned Films for the Deaf Branch  
 EDRS mf,hc

Descriptors: exceptional child education; aurally handicapped; instructional materials centers; program development; deaf; multimedia instruction; inservice teacher education; instructional films; material development; audiovisual aids; educational technology; equipment; program administration; media specialists; program planning; school libraries

Papers consider the problems of combining library science and audiovisual education into educational media complexes, or instructional materials centers (IMC's), in schools for the deaf. Areas covered include the concept of such centers, their relationship with the school library, and the personnel, equipment, materials, and production facilities required. Existing library programs are reviewed and implementation of media programs is discussed. Inservice teacher education in the use of media is also treated, as are the role of the small IMC in diffusing educational innovations and the purpose of educational media in the learning process. (JB)

**ABSTRACT 22331**

EC 02 2331 ED N.A.  
 Publ. Date Feb 70 2p.  
 Park, S. E.  
**Visu-Oral Teaching Aid for the Partially Hearing Infant.**  
 EDRS not available  
 Sound; V4 N1 P24-5 Feb 1970

Descriptors: exceptional child education; aurally handicapped; instructional materials; word recognition; speech education; teaching methods

A teaching device designed to help aurally handicapped children learn words is described. The child fits a word and picture card into a compartment of the device, watches his teacher say the word, imitates the word, then repeats the word while watching his face in a mirror. The process is repeated with other word cards which fill the compartments. Matching cards are then matched with word cards in the compartments. (MS)

**ABSTRACT 22780**

EC 02 2780 ED N.A.  
 Publ. Date Feb 69 36p.  
**Catalog of Captioned Films.**  
 University of Southern California, Los Angeles, National Information Center for Educational Media  
 Office of Education (DHEW), Washington, D. C., Bureau of Education for the Handicapped  
 EDRS not available  
 National Information Center for Educational Media, University of Southern California, Los Angeles, California 90007.

Descriptors: exceptional child services; aurally handicapped; films; library services; directories; instructional films; legislation; depository libraries; deaf; agriculture; guidance; education; health; history; mathematics; sciences; social studies; economics; language arts; religion; physical education; fine arts; geography; sociology; business; civics; political science; safety; home economics; industrial arts; literature; psychology; natural sciences; physical sciences; Public Law 85-905; Captioned Films for the Deaf Program

Legislation establishing a loan service for captioned films, the obligations of borrowers, and the three major distribution libraries are discussed, and 60 film depositories are listed by state. Film titles are arranged in an alphabetical title section which provides information on color, length, sound track, appropriate grade level, and producers, and in a subject section which covers these areas: agriculture, biography, business and economics, civics and government, education, English language, fine arts, U.S. and world geography, guidance, health and safety, U.S. and world history, home economics, industrial arts, literature, mathematics, physical education, psychology, religion and philosophy, science, natural and physical science, social science, and sociology. (RJ)

**ABSTRACT 22806**

EC 02 2806 ED N.A.  
 Publ. Date 69 24p.  
 Watts, W. J.  
**Auditory Training Parts I and II.**  
 EDRS not available  
 Teacher of the Deaf; V67 N393 and 394 P4-18, 105-113 Jan-Mar 1969

Descriptors: exceptional child services; aurally handicapped; auditory training; historical reviews; audiology; hearing therapy; audiovisual aids; Lexical Listening

The historical development of auditory training for the deaf from the first century to recent years is traced. Development of approaches to auditory training described relate to residual hearing, electronic amplification, lip reading, speech and language, early (preschool) training, and application to the severely and profoundly deaf. The literature reviewed stresses that there must be regular periods of graded listening experience, and that auditory experience must be provided on as full-time a basis as is possible. Described in detail is a program utilizing technological advances to aid severely deaf children in making use of small areas of residual hearing. Lexical Listening is a synthetic multi-sensory approach to auditory training, directly linked with a carefully graded reading scheme. Employing four factors--language, hearing, reading, speech--it utilizes electronically recorded material accompanied simultaneously by printed words. The aims are to make fullest use of residual hearing, develop auditory speech perception patterns, improve language and reading ability, and speech production. It differs from the Ewing Listening, Read-



ing and Speaking method in that Lexical Listening does not depend on teacher participation. (JB)

#### ABSTRACT 22904

EC 02 2904 ED 040 556  
Publ. Date Aug 69 62p.

Aldredge, Henry P.

#### **An Investigation to Determine the Effectiveness of Short Concept Films in the Instruction of Handicapped Students. Final Report.**

Georgia State Department of Education, Atlanta, Office of Vocational Rehabilitation

Office of Education (DHEW), Washington, D. C., Bureau of Education for the Handicapped

EDRS mf,hc

OEG-4-9-202070-008-032

BR-20-2070

Descriptors: exceptional child research; handicapped; instructional films; job training; adults; audiovisual instruction; vocational rehabilitation; evaluation methods; repetitive film showings; evaluation; young adults

To determine if short concept films (SCF) are effective tools for assessing the potential of handicapped students for training and work, 135 students at a rehabilitation center were studied. Instructions for how to perform two jobs in jewelry engraving were given verbally by an evaluator, by a color-sound film, a color no-sound film, and by black and white sound and no-sound films. The five treatments were alternated weekly until a total of 27 students were exposed to each treatment. Results revealed the following: the SCF had little effect on the total time students spent on the job sample; instructional time was reduced by as much as two thirds when films were used; more instructional time was spent with students when they used the no-sound films; black and white no-sound films required the greatest number of repeated instructions; and color-sound films were judged most effective of the films. (Author/RJ)

#### ABSTRACT 22906

EC 02 2906 ED 040 558  
Publ. Date Aug 67 178p.

Pronovost, Wilbert and Others

#### **The Development and Evaluation of Procedures for Using the Voice Visualizer as an Aid in Teaching Speech to the Deaf. Final Report.**

Boston University, Massachusetts Office of Education (DHEW), Washington, D. C., Bureau of Research

EDRS mf,hc

OEG-1-6-062017-1588

BR-6-2017

Descriptors: exceptional child research; aurally handicapped; material development; articulation (speech); visible speech; equipment evaluation; deaf; speech improvement; instructional materials; speech therapy; consonants; vowels

A prototype voice visualizer was constructed and a program of instructional materials designed to teach discrimination of minimally paired vowel or consonant

sounds. Two groups of 24 deaf children with poor articulatory ability received instruction twice weekly for 4 months; also, a group of eight deaf children with good speech participated in five sessions. Listener ratings indicated both the consonant and vowel groups improved most markedly in the first month. The consonant group improved more, but improvement in articulatory proficiency was not accompanied by corresponding improvement in word intelligibility. The additional group of eight showed improvement in both areas. The visualizer was reportedly easily operated and presented no technical problems. (Author/JD)

#### ABSTRACT 22950

EC 02 2950 ED N.A.  
Publ. Date 70 5p.

Magner, Marjorie E.

#### **The Use of Audio Tape Recording in the Speech Program at Clarke School for the Deaf.**

EDRS not available

AOEHI Bulletin; V1 N2 P31-5 Spr 1970

Descriptors: exceptional child education; aurally handicapped; deaf; instructional technology; speech therapy; phonotape recordings; audiovisual instruction

The use of audio tape recording (ATR) in a speech program for deaf children is described. The following five ATR uses are explained: a semiannual intelligibility test and speech record; systematic in-class recordings of each child's speech; teacher prepared recordings; story tape recordings; and letter tapes to and from the children's families. (JD)

#### ABSTRACT 23211

EC 02 3211 ED N.A.  
Publ. Date 70 6p.

Feldhusen, John F. and Others

#### **Developing Creative Thinking: The Purdue Creativity Program.**

Office of Education (DHEW), Washington, D. C.

EDRS not available

Journal of Creative Behavior; V4 N2 P85-90 Spr 1970

Descriptors: creative thinking; instructional programs; creativity research; program evaluation; elementary school students; audiovisual instruction; Purdue Creativity Program

The Purdue Creativity Program consisting of audio tapes and printed exercises is described. Examples of exercises are given. Three research studies of the effectiveness of the Purdue Creativity Program are discussed. (MS)

#### ABSTRACT 23414

EC 02 3414 ED N.A.  
Publ. Date Sep 70 4p.

Cunningham, Dean

#### **The Driving Simulator--A Better Way to Teach Deaf Drivers.**

EDRS not available

Volta Review; V72 N6 P372-5 Sep 1970

Descriptors: exceptional child education; aurally handicapped; driver education; simulators; training techniques; equipment; films

A six-place driving simulator system, which has been successful in preparing deaf students to obtain their driver's licenses, is described. Captioned films were developed to accompany the regular instructional program. The program may also be used for deaf students with other handicaps. (KW)

#### ABSTRACT 23453

EC 02 3453 ED 041 417  
Publ. Date Mar 69 67p.

Dallenbach, Jan F.; DeYoung, Kenneth N.

#### **Special Education for the Gifted through Television.**

Educational Research and Development Council of Northeast Minnesota, Duluth Office of Education (DHEW), Washington, D. C., Bureau of Elementary and Secondary Education

EDRS mf,hc

OEG-3-7-703-260-4955

BR-67-3260

Descriptors: exceptional child research; gifted; televised instruction; teaching methods; educational television; audiovisual instruction; achievement; elementary school students; ability identification; rural education

A project was undertaken to study the effects of in-school television programs on gifted 5th and 6th grade students in rural northeastern Minnesota. Ten inservice training workshops on the education of the gifted were held, and T.V. programs were developed (one series for the students on content, another stimulating thought processes). A battery of pre and posttests were administered to 1556 gifted students, and statistical analyses of comparisons between the pre and posttest results and between the control and experimental groups are included. Numerous descriptive, inferential, and cluster analyses were made. On four posttests, certain subgroups of students exposed to the T.V. programs showed greater average gains than the control students, while in five instances, certain categories of the experimental students made smaller average gains. Schools' reactions were also surveyed by questionnaire, and the resulting conclusions and extrapolated recommendations are presented. (KW)

#### ABSTRACT 23460

EC 02 3460 ED 041 422  
Publ. Date Aug 68 102p.

Adams, Sarah R., Ed.

#### **Utilization of Educational Television for Teaching of the Handicapped. Proceedings of the Institute on Educational Television for Teaching the Handicapped, August, 1968.**

State University of New York, Albany, State Educational Department

EDRS mf,hc

Descriptors: exceptional child education; educational television; audiovisual instruction; conference reports; educational technology; production techniques; systems development; material development

Proceedings of the Educational Television Institute include the following topics: the potential of instructional television by Richard Barnes and Mitchel Chetel; the school television production center at Port Jefferson High School in New York State, described by Joseph Thom; Peter Derr's comments on classroom television; applied instructional technology by Ira Perelle; input output problems of educational television by Jeanne Davis; and the future of television for special education by E. Jack Goforth. A conference summary and evaluation are provided. (JD)

#### ABSTRACT 23504

EC 02 3504 ED N.A.  
 Publ. Date Sep 70 2p.  
 Barksdale, Mildred W.  
**Clearinghouse: Student Evaluation of Films Used in a Teacher Education Program.**  
 EDRS not available  
 Exceptional Children; V37 N1 P39-40  
 Sep 1970

Descriptors: teacher education; instructional films; evaluation; mentally handicapped

Undergraduate and graduate education students rated films used in special edu-

cation courses. Twenty-four films are rated on a scale of excellent, above average, average, or poor in the areas of value of subject matter, timeliness, treatment, length, and appropriateness. (KW)

#### ABSTRACT 23561

EC 02 3561 ED 042 294  
 Publ. Date Jun 68 53p.  
 Withrow, Frank B.; Brown, Donald W.  
**An Experimental Program of Language Development Using a Systematic Application of Audio-Visual Aids to Reinforce the Classroom Teacher's Program for Children with Impaired Hearing. Final Report.**  
 Illinois School for the Deaf, Jacksonville  
 Office of Education (DHEW), Washington, D. C., Bureau of Research  
 EDRS mf, hc  
 OEG-6-19-074

Descriptors: exceptional child research; aurally handicapped; language development; audiovisual instruction; lipreading; instructional films; teaching methods; program descriptions; Illinois Communication Scale

Three hundred and six 8mm cartridge-type films were produced to provide deaf

children instruction in and practice with noun vocabulary, question forms, prepositions, and speechreading. Films were placed in 12 classes. Method of presentation and time spent was determined by individual teachers, most of whom had attended a three-day orientation workshop. Group I, consisting of 38 children (median age 8.6) worked with the projectors and language films similar to but not a part of the experimental films for one year. Group II (43 children, median age 7.6) used the experimental films for one year. Group III (29 children, median age 6.6) used both groups of films during two years. To determine progress in speechreading ability, the Illinois Communication Scale (Form B) was administered to each class before and after each year. Group III showed a 50% improvement in speech reading ability over the two years. Group I improved 21.74% while Group II showed 12.00% improvement. Reasons suggested for this are differences in intelligence, previous education, and age, and greater similarity than had been thought between the experimental and non-experimental films. The major criticism related to content (unrelated noun vocabulary). Appendixes include the Illinois Communication Scale and the Evaluation questionnaire. (KW)

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